

FREE GIFT **WORTH £13** THE ULTIMATE GUIDE TO FANTASY GAMING

Turn to
p06 for
details



PC GAMER

THE 50 BEST FREE GAMES
From indie gems to retro classics!

PREVIEW

CRUSADER KINGS III

HUGE FIRST HANDS-ON

HARDWARE

MICE RANKED

THE DEFINITIVE GAMING MOUSE BUYER'S GUIDE

WORLD EXCLUSIVE

KERBAL

SPACE PROGRAM 2

REACHING THE STARS IS JUST THE BEGINNING

PLUS ASSASSIN'S CREED / F1 2020 / XCOM / BEYOND A STEEL SKY / HEARTHSTONE

FUTURE

ISSUE 345



FROM
£3799

Infinity Xtreme Titanium

Windows 10 Home

Intel® 10th Gen i9 10980X Processor

NVIDIA GeForce MSI RTX 2080Ti 11GB Video Card
ASUS TUF X299 MK 2 Mainboard
4x8GB 3200mhz Corsair Vengeance LPX Memory
500GB Samsung 970 EVO Plus SSD
2TB Seagate SATA-III HDD
CoolerMaster H500 RGB Gaming Case
InWin A65 650W Power Supply
Corsair H100i RGB Pro XT Cooler w/ 2x MF120R Fans
TP-Link Archer T6E Dual Band Wireless Card



HD 7.1



Optional



Optional



FROM
£1799

Infinity X99 Ti

Windows 10 Home

Intel® Core™ i9-9900KF Processor

NVIDIA GeForce MSI RTX 2070 SUPER 8GB Video Card
MSI Z390-A PRO Mainboard
16GB DDR4 2400mhz Corsair Vengeance LPX Memory
500GB Samsung 860 EVO SSD
2TB Seagate SATA-III HDD
CoolerMaster Masterbox MB530P Gaming Case
InWin A65 650W Power Supply
Cooler Master Master Liquid Lite 240 Cooling System
PRO Overclocking



HD 7.1



Optional



Optional



FROM
£829

Infinity X66

Windows 10 Home

Intel® Core™ i5-9400F Processor

NVIDIA GeForce MSI GTX 1660 6GB Video Card
MSI Z390-A PRO Mainboard
8GB DDR4 2400mhz Corsair Vengeance LPX Memory
2TB Seagate SATA-III HDD
Corsair 220T White Gaming Case
InWin A45 450W Power Supply
Cooler Master Master Liquid Lite 120 Cooling System



HD 7.1



Optional



Optional



FROM
£1399

Infinity X99 GT

Windows 10 Home

Intel® Core™ i7-9700KF Processor

NVIDIA GeForce MSI RTX 2060 SUPER 8GB Video Card
ASUS PRIME Z390-P Mainboard
16GB DDR4 2400mhz Corsair Vengeance LPX Memory
240GB Western Digital Green SSD
2TB Seagate SATA-III HDD
Cooler Master Masterbox MB520 Black
InWin A55 550W Power Supply
Cooler Master Master Liquid Lite 240 Cooling System
PRO Overclocking



HD 7.1



Optional



Optional

FROM
£539

Infinity X44

Windows 10 Home

Intel® Core™ i3-9100F Processor

NVIDIA GeForce MSI GTX 1650 4GB Video Card
ASUS Prime H310M-R Mainboard
8GB DDR4 2400mhz Corsair Vengeance LPX Memory
1TB Seagate SATA-III HDD
Cooler Master Masterbox Q500L Gaming Case
InWin A45 450W Power Supply
Intel Standard Cooler



HD 7.1



Optional



Optional



FROM
£1329

Tracer IV 17 Xtreme 400

Windows 10 Home

Intel® Core™ i7-10750H Processor

Intel HM470 Chipset
NVIDIA GeForce RTX™ 2060 6GB DirectX® 12.1
16GB 2666MHz DDR4 Corsair Vengeance Memory
1TB Western Digital Blue SN550 SSD
17.3" FHD 144Hz IPS Display
Intel Wireless AX201 Wi-Fi 6 (802.11ax)+ Bluetooth



5.5 hrs



Bluetooth 5



2x USB 3.1
1x USB 2.0

1x USB type C | Built-in 720P HD Webcam | 2.5 kg | Wi-Fi 6 | 1x HDMI | 2x Mini Displayport

ORDER TODAY! **03333 237 776**

Work easy. Play hard.  Windows

Get £20 off using code PCGAME20 at the checkout



CUSTOM BUILD **GAMING PCs**

WWW.CYBERPOWERSYSTEM.CO.UK

Follow Us!    @CYBERPOWERUK |  @CYBERPOWER_UK

All Desktop systems come with 3 year Limited Warranty + lifetime toll free tech support
730 Baldwin Park Blvd., City of Industry, CA 91746. CyberPowerPC, CyberPowerPC Logo and, Unleash The Power are trademarks of CyberPower Inc. Copyright © 2018 CyberPower. All rights reserved. All prices are subject to change without notice or obligation. Celeron, Celeron Inside, Centrino Inside, Centrino Logo, Core Inside, Intel, Intel Logo, Intel Core, Intel Inside, Intel Inside Logo, Intel ViiV, Intel vPro, Itanium, Itanium Inside, Pentium, Pentium Inside, ViiV Inside, vPro Inside, Xeon, and Xeon Inside are trademarks of Intel Corporation in the U.S. and other countries. All prices are subject to change without notice or obligation. CyberPower is not responsible for any typographical or photographic errors. CyberPower is not responsible for any typographical or photographic errors.

Intel Inside®.
Extraordinary
Performance
Outside.





Reveal The True Power of 10th Gen Processors
SHARPER IN CORE BLACK



GS66 Stealth



| Up to 10th Gen. Intel® Core™ i9 processor | Windows 10 Home / Windows 10 Pro | Up to NVIDIA® GeForce® RTX 2080 SUPER™ with Max-Q Design |

WHERE TO BUY

MSI.COM

SCAN

Scan Computers
www.scan.co.uk
0871 472 4747

Currys PC World

Curry's PC World
www.currys.co.uk
0344 561 0000

OVERCLOCKERS UK

OVERCLOCKERS UK
www.overclockers.co.uk
01782 4444 55

Scan to
learn more



*Product features and specifications may vary by model.

Intel, the Intel Logo, Intel Inside, Intel Core, and Core Inside are trademarks of Intel Corporation or its subsidiaries in the U.S. and/or other countries.

PC GAMER

#345 JULY 2020

Future Publishing Ltd

Quay House, The Ambury, Bath BA11UA

Tel 01225 442244 | Email letters@pcgamer.comwww.pcgamer.comfacebook.com
[/pcgamer](https://www.facebook.com/pcgamer)youtube.com
[/pcgamer](https://www.youtube.com/pcgamer)twitter.com
[/pcgamer](https://twitter.com/pcgamer)twitch.tv
[/pcgamer](https://www.twitch.tv/pcgamer)**PC GAMER**
Forumforums.pcgamer.com**PC GAMER** PRESENTS
PC
GAMING
SHOW[pcgaming
show.com](https://pcgamingshow.com)

All contents © 2020 Future Publishing Limited or published under licence. All rights reserved. No part of this magazine may be used, stored, transmitted or reproduced in any way without the prior written permission of the publisher. Future Publishing Limited (company number 2008885) is registered in England and Wales. Registered office: Quay House, The Ambury, Bath BA1 1UA. All information contained in this publication is for information only and is, as far as we are aware, correct at the time of going to press. Future cannot accept any responsibility for errors or inaccuracies in such information. You are advised to contact manufacturers and retailers directly with regard to the price of products/ services referred to in this publication. Apps and websites mentioned in this publication are not under our control. We are not responsible for their contents or any other changes or updates to them. This magazine is fully independent and not affiliated in any way with the companies mentioned herein.

NEXT ISSUE ON SALE: June 25

If you submit material to us, you warrant that you own the material and/or have the necessary rights/permissions to supply the material and you automatically grant Future and its licensees a licence to publish your submission in whole or in part in any/all issues and/or editions of publications, in any format published worldwide and on associated websites, social media channels and associated products. Any material you submit is sent at your own risk and, although every care is taken, neither Future nor its employees, agents, subcontractors or licensees shall be liable for loss or damage. We assume all unsolicited material is for publication unless otherwise stated, and reserve the right to edit, amend, adapt all submissions.



We are committed to only using magazine paper which is derived from responsibly managed, certified forestry and chlorine-free manufacture. The paper in this magazine was sourced and produced from sustainable managed forests, conforming to strict environmental and socioeconomic standards. The manufacturing paper mill and printer hold full FSC and PEFC certification and accreditation.



Member of the
Audit Bureau of
Circulations
12,708
January-
December 2018

For press freedom
with responsibility

Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR)

www.futureplc.com

Chief executive **Zillah Byng-Thorne**
Non-executive chairman **Richard Huntingford**
Chief financial officer **Penny Ladkin-Brand**

Tel +44 (0)1225 442 244

“THE GAME PUSHED YOU TO REACH FOR GREATNESS”

**ROBIN VALENTINE**

Specialist in
Taking small steps

Twitter
[@robinlvalentine](https://twitter.com/robinlvalentine)

This month
Warmed up to the idea of moving to Mars.

The magic of the original *Kerbal Space Program* wasn't in watching its boggle-eyed astronauts gleefully explode, or even in the careful, crafting of your next rocket, itself likely doomed to a fiery end. No, the magic was in the way the game pushed you to reach for greatness. *You will get to the Mun*, it whispered. *No matter how many of these green idiots we have to sacrifice to get there.*

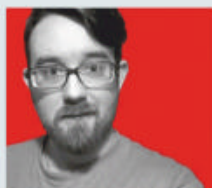
How appropriate, then, that its sequel should be so ambitious, reaching even further into a sprawling universe of simulation. We were invited to stare deep into the wondrous void of the game so far, and we returned with stars in our eyes. And a cover feature.

ROBIN VALENTINE
PRINT EDITOR
robin.valentine@futurenet.com

SUBSCRIBE TO
PC GAMER

Check out our
latest offer!
SEE p46

The PC Gamer team



FRASER BROWN
Specialist in
Royal indiscretions

Twitter
[@FraserIBrown](https://twitter.com/FraserIBrown)

This month
Lived his *Crusader Kings* life to the fullest – cue infidelity, heresy, incest, and assassination.



WES FENLON
Specialist in
Bin chicken

Twitter
[@wesleyfenlon](https://twitter.com/wesleyfenlon)

This month
Roamed the streets looking for a fight. Luckily lockdown meant there wasn't anyone about.



RACHEL WATTS
Specialist in
The itch.io homepage

Twitter
[@rachel_watts](https://twitter.com/rachel_watts)

This month
Played an absolute ton of great free games. Bonus side-effect: she could afford food this month.



ANDY KELLY
Specialist in
Fast getaways

Twitter
[@ultrabright](https://twitter.com/ultrabright)

This month
Drove rally cars, off-road trucks and even a hovercar. And he drove us mad too!!! We have fun.

Contents

#345
JULY 2020

SUBSCRIBE TO
PC GAMER
Check out our
latest offer!
SEE p46



Monitor

08 THE TOP STORY

Assassin's Creed gets Norse.

10 THE SPY

The latest rumours investigated.

12 SPECIAL REPORT

A look at *Minecraft*'s hi-tech new look.

14 POSITIVE INFLUENCE

The origins of *Into the Breach*.

16 DNA TRACING

Crytek's ongoing legacy.

Previews

22 Crusader Kings III

26 Sea of Stars

28 Going Under

30 Cris Tales

32 F1 2020

34 Beyond a Steel Sky

EARLY ACCESS

36 Trials of Fire

Features

38 Kerbal Space Program 2

One giant leap for the series.

48 The 50 Best Free Games

Enjoy quality gaming for no money.

38



22 CRUSADER KINGS III

Can it live up to its smash hit predecessor? We've gone hands-on to find out.

38 KERBAL SPACE PROGRAM 2

An in-depth look at the hugely ambitious sequel that's taking us further than ever before.

48 THE 50 BEST FREE GAMES

Our top picks for the best indie gems and retro classics you can pick up for nothing.



GET YOUR FREE GIFT

Download your free Ultimate Guide to Fantasy Gaming here:

bit.ly/3fLJtvB



22



48



62



108



84

62

XCOM: CHIMERA SQUAD

Can humans and aliens work together? We find out in this experimental spin-off.

108

TEAM FORTRESS 2

We revisit the genre-defining shooter, and see whether we still recognise it after all these years.

84

GAMING MICE REVIEWED

Looking for a new gaming mouse? Check out our guide to the six best on the market.

Reviews

62 XCOM: Chimera Squad

66 Gears Tactics

68 Super Mega Baseball 3

70 Cloudpunk

72 SnowRunner

74 Streets of Rage 4

76 Before We Leave

FREE GAMES

78 First Cut

79 Deepdive

79 Remnants

THEY'RE BACK

80 Warhammer: The End Times – Vermintide

81 theHunter: Call of the Wild

81 The Haunted Island, a Frog Detective Game

81 Aviary Attorney

81 Goat Simulator

Hardware

84 GROUP TEST

Our expert guide to the best gaming mice around.

88 TECH REPORT

How do you build a computer that imitates the human brain? With difficulty, it turns out.

90 BUYER'S GUIDE

Three ready-made builds at three different budgets.

Extra Life

94 NOW PLAYING

Stories and thoughts from the games we've been playing this month.

98 UPDATE

How the Demon Hunter has rocked the world of *Hearthstone*.

100 MOD SPOTLIGHT

The most interesting mods so far for *Mount & Blade II: Bannerlord*.

104 HOW TO

Build the best home base you can in *Fallout 76*.

106 WHY I LOVE

The joys of jungling.

108 REINSTALL

Heading back into *Team Fortress 2*.

112 MUST PLAY

Tom reveals his current favourites.

MONITOR

NEWS | OPINION | DEVELOPMENT



Medieval snowball fights were extremely serious.

VIKING VACATION

ASSASSIN'S CREED VALHALLA is invading PC this year

After a year of rumours, the Viking is finally out of the bag: Ubisoft has unveiled *Assassin's Creed Valhalla*. It's taking the murderous series to 9th century England where our Viking hero Eivor will duke it out with Saxons led by the King of Wessex, Alfred the Great.

Ubisoft announced the new game in a pretty unconventional and slightly exhausting way, livestreaming the creation of some concept art. We were expecting a trailer, which did eventually follow, but first we had to sit through an eight-hour painting

session as Boss Logic painstakingly put together a teaser, frequently going back and tweaking castles and boats as we waited for confirmation that it was what we expected.

Valhalla continues the series' progression from sneaky parkour game to open-world RPG, and while

**THE VIKINGS WERE
PRETTY EXTRA, AND
EIVOR'S THE MOST
EXTRA OF THEM ALL**

Eivor – whose gender you can pick – does still carry the infamous hidden blade, they're going to be pretty busy dabbling in a lot of other activities. Like any good Viking, they love a raid, so expect to lead attacks on Saxon settlements, terrifying villagers and stealing all their prized possessions. You'll also be able to get into larger battles with Saxon armies, leading your very own warband.

RAID GROUP

The Vikings were pretty extra, and Eivor's the most extra of them all, able to dual-wield pretty much every weapon. Not historically accurate, perhaps, but pretty cool. This

AGE APPROPRIATE

NEW WARHAMMER RTS



Frontier has announced an RTS game based on Warhammer: Age of Sigmar. The mythic fantasy setting, home to the rebooted iteration of Games Workshop's fantasy wargames, has hardly been touched by other developers before, but it feels ripe for a lavish videogame adaptation. ■RV

HOT STUFF

SUMMER GAME FEST



With E3 and Gamescom 2020 cancelled, the Summer Game Fest is a new event that'll fill the gap with gaming news, reveals, demos, and in-game events. Fronted by Geoff Keighley, the initiative runs from May to August and will include plenty of participants including Sony and Microsoft. ■HS



PITCH PERFECT

SEINFELD ADVENTURE



Although Seinfeld finished airing more than 20 years ago, two indie developers want to carry on the sitcom's legacy in the form of a point-and-click adventure game. The team are currently "pitching to the internet" to drum up interest before approaching the rights holders for an official contract. ■RW



ABOVE, TOP: Remember to admire the beautiful vistas before you burn everything down.

ABOVE, BOTTOM: No confirmation if you can dual-wield bears, but we can hope.

includes shields. Yes, you can charge into battle carrying two shields. What a time to be alive.

While *Origins* and *Odyssey* were framed as a journey where you go to a new area, clear its quests, and then move on, *Valhalla* will feature a hub that you return to and nurture over the course of the game. The Vikings aren't just raiding and pillaging; they've come to England to start a new life, with families in tow. Your settlement will let you recruit new troops, but you'll also be able to construct buildings. It's also at the centre of *Valhalla*'s quests, and the decisions you make will be reflected in the settlement's development.

England in the 9th century isn't a united country, so various kingdoms are vying for control, both Saxon and otherwise. Historically, Alfred the Great laid the seeds for a unified England, but there was plenty of opposition. The other Saxon monarchs had their own ambitions, and the Danes, Norse, and Celts certainly weren't keen to be ruled by Wessex. It looks like you'll be able to take advantage of that in *Valhalla*, conducting diplomacy and forging alliances with the lords of England. You'll also get help from your mates online, using Viking warriors that they've created in your own raids. You'll be able to start chopping off Saxon heads in winter 2020.

Fraser Brown

Highs & Lows



HIGHS

Fortnite

Travis Scott's in-game concert attracted 12.3 million players.

Fallout 76

Bethesda has confirmed it's looking to add pets to the game.

American Truck Simulator

The trucking sim now lets you roll down your windows and enjoy the sounds of nature (and the highway).

WWE 2K21

WWE 2K20 was such a disaster that the series is now on hold indefinitely.

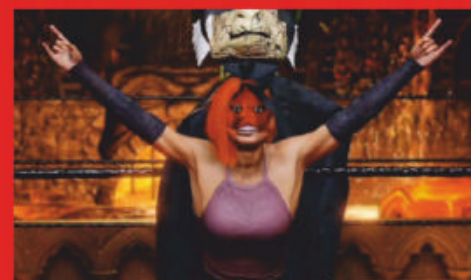
Call of Duty: Warzone

Cheating has become such an issue in *Warzone* that console players are opting out of crossplay.

Doom Eternal

Mick Gordon doesn't seem pleased with *Eternal*'s soundtrack after it was poorly mixed without the composer's involvement. Allegedly, he might not return.

LOWS



The Spy

BUT WHO WATCHES THE SPY?

If you were to ask The Spy, “Hey, The Spy, what’s the worst thing about your job?” The Spy would answer, “Oh, finally, you take an interest! The Spy has been doing this every issue for decades. You never call. You never write. Honestly, The Spy was beginning to think you didn’t care at all.” And then The Spy would confirm what you suspected all along: it’s the vents. They’re dirty. They’re cramped. It’s as if they weren’t designed for silent traversal across a building at all.

If you were to ask The Spy, “Hey, The Spy, what’s the second worst thing about your job?” The Spy would reluctantly admit that it’s the spoilers.

Knowing what’s going to happen before it’s revealed is literally the job description. The news? The Spy calls it the snooze. A world leader embroiled in an embarrassing scandal? The Spy has already read the receipts. Shadowy machinations by a foreign power striking the very heart of democracy? Yaaawn. Robot dinosaurs emerging from the Earth’s crust to terrorise humanity? Oh, right, yeah – sorry. Spoilers, that’s where we’re going with this.

This is also why The Spy’s such a fan of the current ongoing trend of remastering every game from the last 20 years. After all, you can’t spoil a game that everybody already knows the ending to.

That’s especially true of the *Mass Effect* trilogy,

which became infamous for the internet’s not-at-all overblown reception to its conclusion. And wouldn’t you know, in a recent earnings call, EA revealed that, in addition to some new sports games, mobile releases and a “new IP”, the publisher would be releasing “an additional EA HD title” within the next financial year, ending March 2021. Following the call, VentureBeat confidently proclaimed that this referred to an HD remake of the *Mass Effect* trilogy, although didn’t show its working.

Nevertheless, it would make sense for EA to remind everyone of why *Mass Effect* was once considered so good. Last year, it was rumoured that a new game in the series was in development, making it a good time to help everyone forget what a disappointment *Andromeda* turned out to be. The original trilogy deserves to be in a better package, too. Even the most recent of the three has its DLC tied to the proprietary Bioware Points currency, making it an annoying faff to get the surprisingly good *Citadel* expansion.

Let’s just hope the fact that everyone already knows how *Mass Effect 3* ends will prevent the backlash this time, although given the cyclical nature of online discourse, that’s perhaps wishful thinking. Spoiler: next month we’ll be back to “should all games have an easy mode”, so get your takes in now.

RESURRECTION!

If *Mass Effect* isn’t your jam – what with its nuanced story and three-dimensional environments – maybe you’d prefer a return to the ever popular *Diablo 2*? According to French gaming site Actugaming, Activision studio Vicarious Visions is making a remaster of Blizzard’s classic ARPG, inventively called *Diablo 2 Resurrected*. Actugaming have form here, having previously called announcements for *Diablo 4*, *Shadowlands*, and *Overwatch 2* ahead of their reveals at Blizzcon.

After the poorly received *Warcraft III* remaster, you may be looking for spoilers as to whether this remaster will be any good. Well, bad news: The Spy isn’t a fortune teller. Spy out. ■
The Spy



THE SPY
This is The Spy’s favourite page in the magazine.

AFTER ALL, YOU CAN’T SPOIL A GAME THAT EVERYBODY ALREADY KNOWS THE ENDING TO

This month in... 2010



1 PC Gamer loves a good *Total War* cover, and *Shogun 2* was one of the best. Not only because of the bold composition of the cover itself, but also because it’s still one of the best *Total War* games around – providing plenty of meat for Graham’s excellent world exclusive feature. Not sure that “Bring on the ninjas!” strap would survive today, though.

ISSUE
215, July 2010
ON THE COVER
Shogun 2: Total War
IN THE CINEMAS
Shrek Forever After

2 Rick McCormick enjoyed *Alpha Protocol*, which is the correct opinion to have about Obsidian’s RPG. Bad combat and minigames, but full of clever ideas.



3 You’ve got to admire the chutzpah of a feature titled “How to be awesome at everything”, but this ten-page round-up of tips for a variety of games and genres certainly takes a good stab at it. Sure, a lot of it has been rendered obsolete over time, which is our excuse if we ever decide to steal (er, ‘revisit’) this idea.

msi



FIRST **7**nm TECHNOLOGY GAMING LAPTOP

 **Alpha 15**



AMD
RADEON
5500M

AMD
RADEON
FreeSync

Windows 10 Home / Windows 10 Pro | up to AMD Ryzen™ 7 Processor and Radeon™ RX5500M Graphics

WHERE TO BUY

MSI.COM

amazon.co.uk

OVERCLOCKERS UK

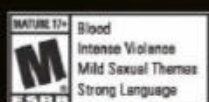
SCAN

go.com



laptops
direct

Scan to
learn more



Tom Clancy's Ghost Recon® Breakpoint © 2019 Ubisoft Entertainment. All Rights Reserved. Tom Clancy's, Ghost Recon, the Soldier Icon, Ubisoft and the Ubisoft logo are registered or unregistered trademarks of Ubisoft Entertainment in the U.S. and/or other countries.

*Product features and specifications may vary by model.

Special Report

PCG INVESTIGATES



Crystal Palace RTX
by GeminiTay.

REBUILDING BLOCKS

Cutting-edge graphics find an unlikely home in **MINECRAFT WITH RTX**

Step out onto the promenade of Imagination Island and you'll catch a glimpse of an expansive vista in the hazy glow of the morning sunlight, filled with roller coasters, food stands, and a cathedral that would give the Sagrada Família a run for its money. It's a *Minecraft* world built by creator collective BlockWorks, and every inch has been constructed to showcase the most dramatic change to *Minecraft*'s graphics since it launched a decade ago.

The *Minecraft with RTX* update flaunts its new suite of ray-traced effects – including reflections, global illumination, shadows, and refraction – powered by an all-encompassing path tracer.

“After *Quake II RTX*, we knew it was possible,” says Oli Wright, Nvidia GeForce devtech engineer. “So it seems natural to go that way for *Minecraft*. It's going to get the best results. Doing individual effects will get you partway there but not the whole deal... it's where all games are going to end up at some point. Just a question of when.”

“We've had a history of making these kind of big technological bets,” adds Kasia Swica, senior program manager. “So whether it's been early adoption of virtual reality, cross-platform play between mobile, PC, and console, especially from our engineering side, they're

really looking for what's next to bring the franchise forward constantly. So ray tracing seemed like a good fit.”

LIGHT SHOW

Minecraft is a particularly rousing example of the new rendering technology. Its blocky graphics are amplified tenfold with ray tracing without losing sight of the simplicity that made the game great. The inclusion of ray tracing has even served to streamline the rendering process and produce effects otherwise deemed impossible or impractical, such as blending together beams of light diffused through stained-glass blocks.

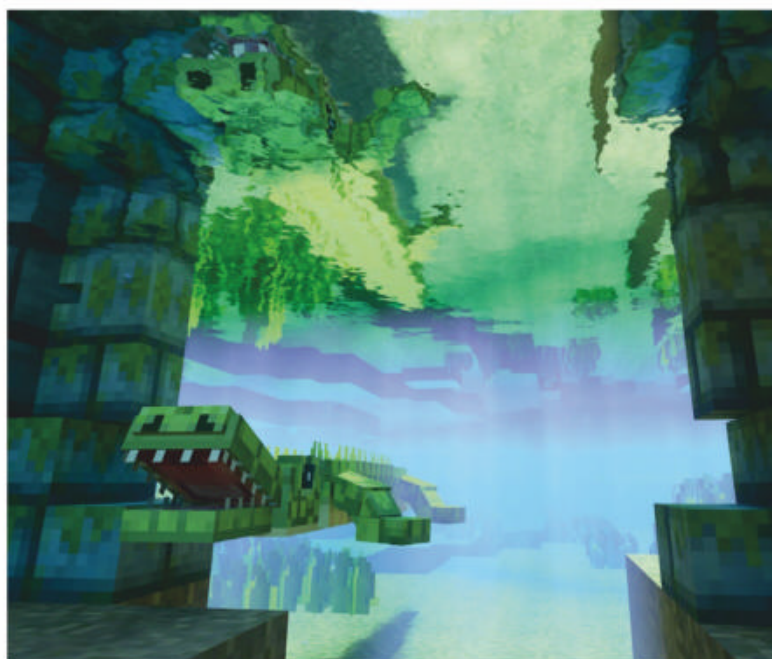
“This is something where ray tracing makes this kind of effect much easier from a programming point of view than a traditional renderer,” says Wright. “You're shooting a ray to the sun, and that's going to be going through different layers of glass. And that's exactly what the ray tracing shader infrastructure gives you. It can tell you when that ray goes through every polygon along the path.

“So you can just say: figure out what colour it is, how much of the light is going to get through that bit of glass, and what colour it's going to change to. And you just do that for every bit of glass that the ray goes through. And it, I don't want to say just works, but it just works. So that those kind of effects are actually far easier to do with ray tracing than they would be with a rasterised game.”



Bleeding edge

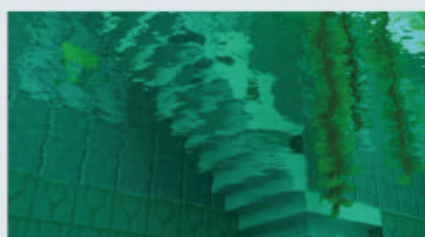
Ray tracing is a physics-based rendering technique first proposed in 1968, but only recently made possible in real-time within videogames. By tracing the path of light between a camera and a light source, and keeping track of all the intersections along the way, ray tracing allows for the composition and lighting of a scene with lifelike accuracy.



FAR LEFT: Aquatic Adventure RTX by Dr_Bond.

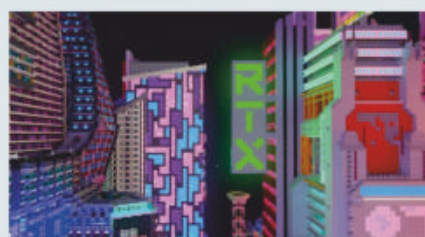
LEFT: Of Temples & Totems RTX: A Tale of Elemental Artifacts by Razzleberries.

WHAT'S NEW *The effects made possible with ray tracing*



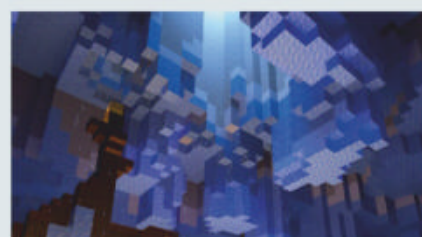
REFLECTIONS

By tracking the path of a ray to and from an object, it's possible to generate dynamic reflections with accuracy.



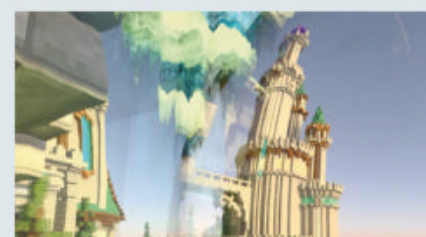
GLOBAL ILLUMINATION

With ray tracing, indirect lighting bouncing around a scene can be generated in real-time.



SHADOWS

With information on how an object is illuminated, soft and hard shadows can be achieved with nuanced detail.



REFRACTION

By casting a ray through an object, such as a lens, it's possible to accurately portray how it would alter light.

"It's automagical," Swica jokes. Yet there's plenty of busy work that requires a human touch, too. That's where physically based textures come in: a new collection of material properties for every *Minecraft* block. Whereas each game block populating the map used to come with two base properties – colour and opacity – the new *Minecraft with RTX* guidelines introduce four more: metallic, normal (height map), emissive (light emission properties), and roughness.

Physically based texture changes – such as those to brickwork, switches, or carved stone – add only minor flourishes to the surface of the block, yet serve to overhaul the look and feel of the game world and allow objects to interact with light and surrounding geometry in an entirely new and exciting way.

The underlying system's newfound complexity surfaces new challenges,

and the team has integrated Nvidia's AI super-sampling technology DLSS 2.0, among other optimisations, to help ease the graphical burden of the RTX update.

"We're constantly optimising and trying to improve it," explains Clayton Vaught, technical director of the *Minecraft* Bedrock team. "We constantly push forward and get more performance out of it. So as new tools become available to us, imagine DLSS 3.0 down the road, we'll definitely want to partner back up with Nvidia to bring forward the new tools there and we'll want to bring forward whatever we can inside the game to make it more performant and more accessible."

THE UNDERLYING SYSTEM'S NEWFOUND COMPLEXITY SURFACES NEW CHALLENGES

"And on top of that, there is still some experimentation in ray tracing algorithms themselves that can and should be useful for *Minecraft* which just aren't ready yet," adds Alexey Panteleev, principle devtech engineer at Nvidia.

By its very nature as a simplistic sandbox, *Minecraft* allows for a user to test the boundaries of what's possible. The ability to adapt to user-generated content is what makes *Minecraft with RTX* so different to develop from other ray-traced titles before it. I ask the developers how they can ensure the game doesn't break when a player loads as many lights as they desire into a scene.

"That's the real trick, isn't it?" Wright says. "That's

definitely the challenge with this kind of game. We hope that they won't break it, but they should be able to put down lots and lots of lights. And if something does degrade, we hope it degrades gracefully."

A survival mode

adventure will likely turn up fewer screen-consuming disco-castles than the pre-made beta worlds, but for now ray tracing remains taxing on system performance. What you get in return is something quite glorious. Even I, a lapsed *Minecraft* obsessive, find myself strolling around these carefully crafted game worlds just for the simple pleasure of taking in all that they have to offer.

Minecraft proves that ray tracing doesn't have to be a purely photorealistic endeavour. It's been built into one of the globe's most loved games to staggering effect. There's truly no better flagship for ray-traced rendering today. ■

Jacob Ridley

Positive Influence

INSPIRATIONS AND CONNECTIONS IN GAMES

BREACH BIRTH

How **INTO THE BREACH** turned tiny tactics into weird fiction

You might have imagined, as I did, that the making of *Into the Breach* was punctuated by home screenings of Kaiju films – the Japanese monster movies defined by the image of Godzilla stomping through a metropolis that seems to shrink in his shadow. The game's Vek even bear a resemblance to Godzilla's co-stars in the latest round of remakes: lumbering insects that loom over the tallest tower blocks. Ask Subset Games, though, and they'll put an enormous foot through that theory.

"I don't think I've ever seen more than a few minutes of a proper Kaiju film other than *Pacific Rim*," says co-designer Justin Ma. "And I thoroughly disliked that movie."

The world of *Into the Breach* came about not as a tribute to giant monster fiction, but as justification for the mechanics Subset was working to hone. Yes, from its very first concept, this was a game about defending a city using a giant mech – the power of which was offset by its capacity for terrible collateral damage. But as development wore on, the *BattleTech*-style systems for managing heat, power and weight that programmer and co-designer Matthew Davis had envisaged were streamlined away. The influences that won out instead were those of small-scale tactics games like *Fire Emblem* and *XCOM* – as well as the puzzle-like battlegrounds of *Hoplite* and *Desktop Dungeons*.

"They are both so tightly made and it seemed like an interesting design challenge," Davis says. "It turned out to be even harder than we thought, which is why it took nearly five years to make *Into the Breach*."

The game was shaped as much by what the studio cut as what it built. For a long time, Subset had plans for pilots driven slowly mad by time travel, in the mode of *Darkest Dungeon* and *Eldritch Horror*. "I would regularly try to sneak in elements from the board games I was playing," Davis says. "Though most of that was ultimately cut."

That ruthless, mechanics-first approach is how *Into the Breach* was whittled down to its taut and rewarding core. But it also took its fiction in surprising directions. Subset confined the game to a series of islands in order to restrict its play area. "The fact that the sea levels had risen and wiped out most of humanity before the game even started was just more convenient layering on why these specific islands would be so important," Davis says.

Yet the decision allowed Chris Avellone to write an oddly optimistic apocalypse – one in which humanity has already faced off climate change and sentient AI and found a balance. "It's anti-inspiration," Avellone says. "You take what's been done before and then try to find a new spin. With *Pinnacle*, the idea was to create a corporation of robots that still worked with humanity, but worked on securing robot autonomy as well."

JUST IN TIME

Pilot stories were inspired by Davis and Ma's mechanics, too. By the time Avellone wrote their dialogue, the designers had created special combat abilities, and artist Polina Hristova had drawn their portraits. Avellone's job was to join the dots and find a character arc.

"Isaac Jones' wide-ranging temporal anxiety took a nod from Chidi's indecisiveness in *The Good Place*," he says.

"Gana's combat programs were a nod to the combat routines Baymax downloads in *Big Hero 6*."

All of this world-building had to fit into tiny word counts. Thankfully, Avellone had prior experience with *Fallout: New Vegas*' dialogue editor.

"While it may seem unromantic, game writing can be a pragmatic process," Avellone says. "What may seem a creative result can actually be due to a variety of constraints."

For anybody who's ever stared at the board of *Into the Breach* for minutes on end, to find a life-saving solution, creatively empowering constraints are all too familiar. ■

Jeremy Peel

PAPERBACKS *The books Justin Ma read while making Into the Breach*



CHILDREN OF TIME

The last humans alive discover a planet of evolved, and much more civilised, spiders.



THE FIFTH SEASON

Every few centuries, the people of the Stillness endure a period of climate disaster.



THE EXPANSE

The popular novel series concerns a colonised Solar System, with all the political intrigue that entails.



ALL YOU NEED IS KILL

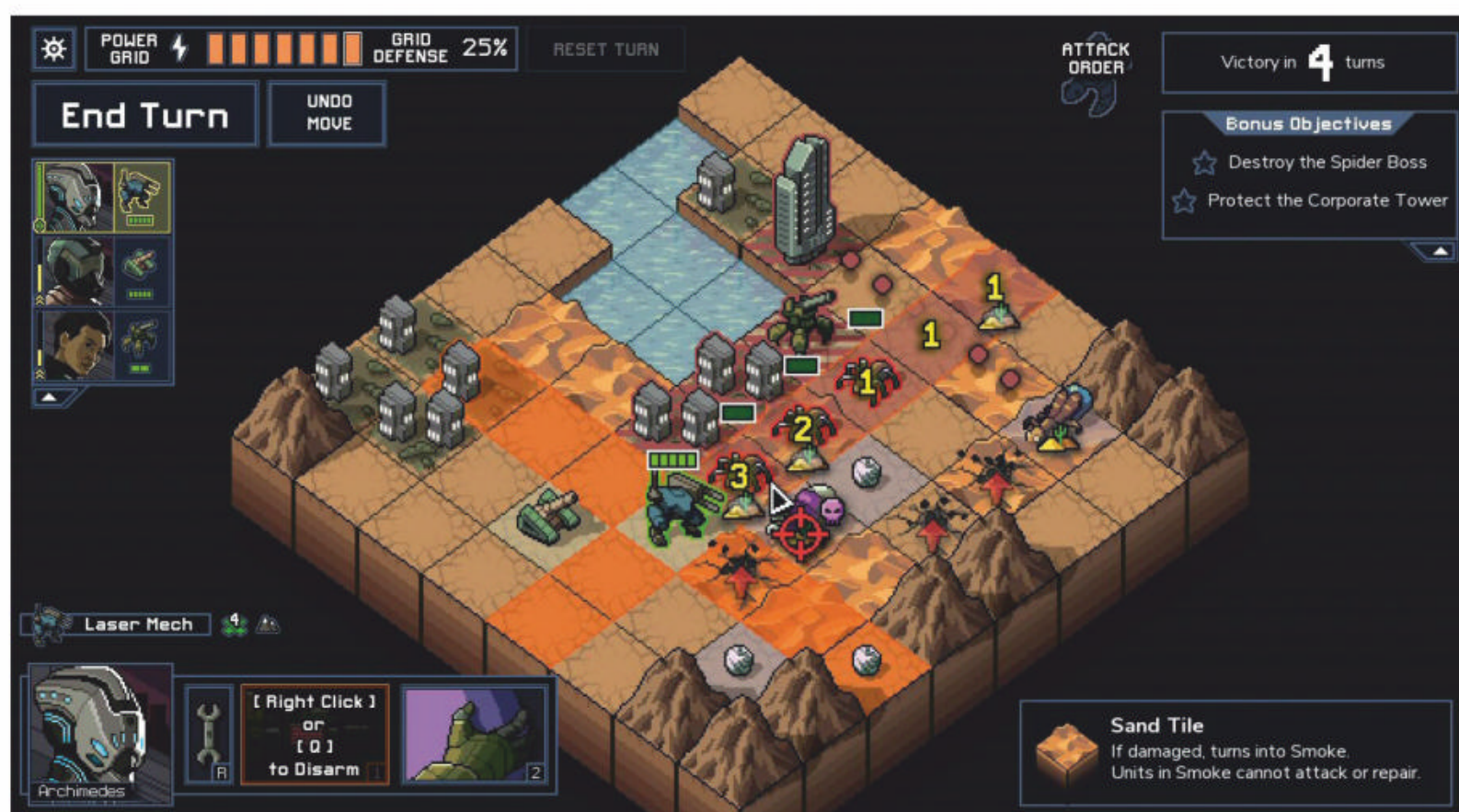
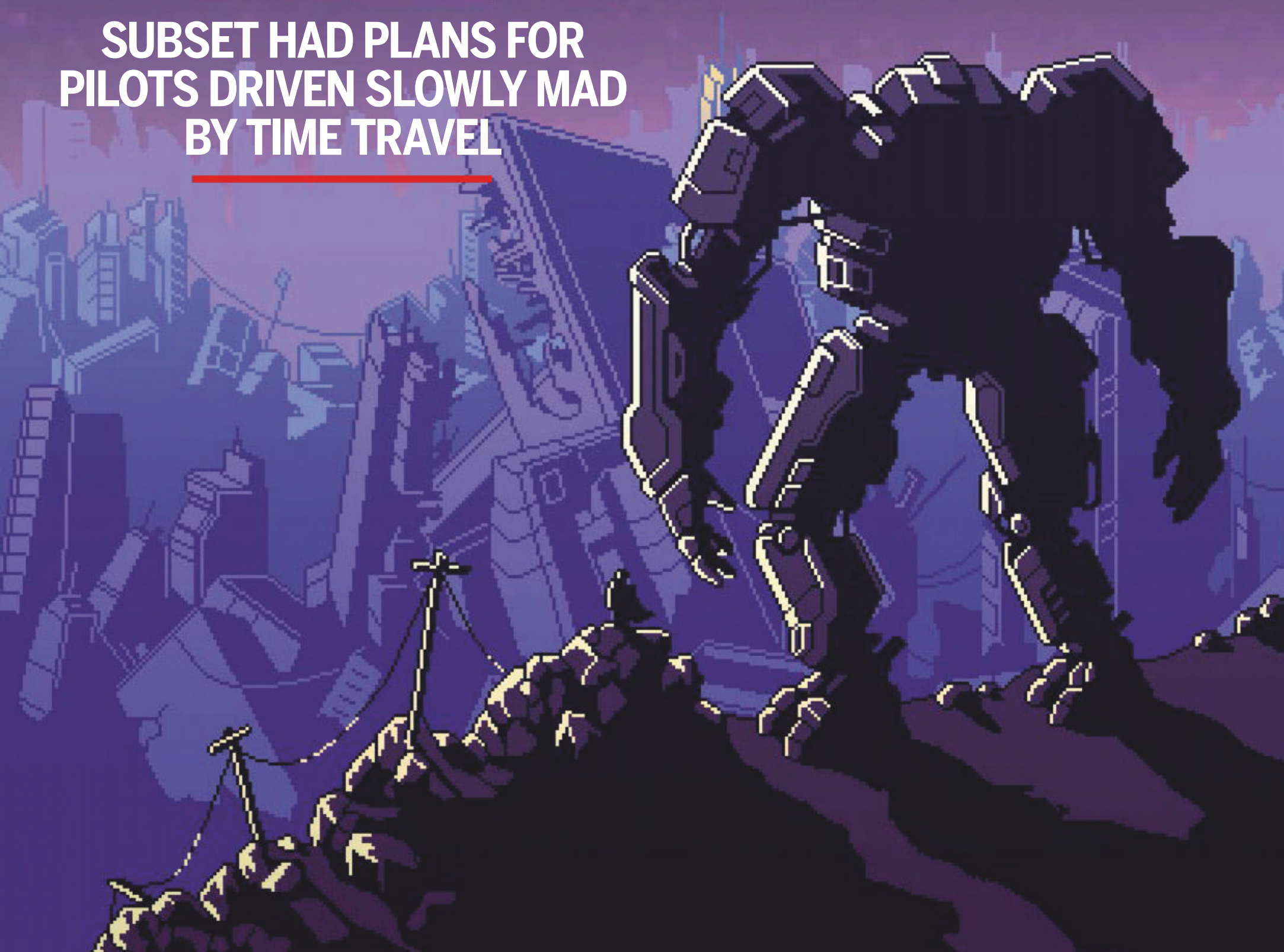
This story about a soldier who perfects his skills through time travel became a Tom Cruise movie.



SIX WAKES

A clone wakes up on a starship to discover her most recent self murdered. A strange sort of whodunnit. In space.

SUBSET HAD PLANS FOR PILOTS DRIVEN SLOWLY MAD BY TIME TRAVEL



ABOVE: The team pondered the long-term effects of climate change during development.

LEFT: The Vek's delayed attacks help convey weight, like tankers turning at sea.



DNA Tracing

■ GAMING'S LINEAGES EXPLORED

**IN HUNT: SHOWDOWN, A
PARTICULARLY BRUTAL TWIST ON
BATTLE ROYALE, NOISE IS DEADLY**

CRYSIS POINT

Crytek has been forever blowing action bubbles

It took Crytek's latest game, *Hunt: Showdown*, to teach me how to play its very first. The studio's 2004 debut, *Far Cry*, had seemed like a devolved stealth game – a stunted halfway point between *Doom* and *Dishonored*. But there's a satisfying throughline from where the company began to where it is now.

In *Hunt: Showdown*, a particularly brutal twist on battle royale, noise is deadly. Gunshots telegraph your position not just to the zombie mobs that roam the map, but to other players hungry for the same bounty you're after. Yet sometimes you have to open fire to survive the toothy advances of a hellhound.

Far Cry functions according to the same principles. This was a time before silent melee takedowns – when your machete was a clumsy last resort, and silenced weapons were rare. Rather than attempt to ghost your way across the tropical rainforest, it's better to pounce on patrols quickly and decisively – then dive into the cover of a nearby cave before reinforcements arrive.

SELF CARE *Crytek isn't alone in naming games after itself*

TWO POINT STUDIOS

This developer dreams of an integrated world of management games set in Two Point County.

SENSIBLE SOFTWARE

Remember *Sensible Soccer*? *Sensible Golf*? *Sensible Train Spotting*? No really, that last one happened.

YAGER

Before *Spec Ops: The Line*, this Berlin studio made a combat flight sim named, er, *Yager*. Why overcomplicate these things?

BELOW: Glorious vistas that you can explore.

BUBBLE AND SQUEAL

By its next game, Crytek had baked this phased play into its mechanics. *Crysis* was built around a muscular exosuit that made you look like an exhibit at Bodyworlds, but allowed you to switch between powers at will: super speed, extra strength and an invisibility cloak that required careful deployment to make best use of your limited battery. The studio had managed to codify its quiet-loud approach in level design, too: read the interviews it conducted with press about the *Crysis* games and you'll see mention of 'action bubbles'. These pockets of noise were designed to give you space to manoeuvre; if *Crysis* asked you to infiltrate a North Korean base, it encouraged you to take the long way round, swimming downriver and storming through the less-protected side that is reserved for deliveries.

It's impossible to separate the design of Crytek's early games from its tech. The great draw of *Far Cry* was its draw distance – it was born from a demo that Nvidia shipped as benchmarking software with its graphics cards. And for many years, Crytek games served the same purpose for PC gamers: if their machines ran *Crysis* at the highest settings, that was a point of pride. But even as the sheen of those games faded through the years, the environments created to show them off remained. The studio had blown open the FPS, offering new scope and freedom of approach. The mountains and oceans once drawn into the background of shooters were finally within reach, and the genre would never be the same.

TIME TO CRY

You might imagine that a studio with DNA as distinct as this would protect it over generations of games, the way id Software has with *Doom*. But while Crytek had established CryEngine as technology to be reckoned with, it hadn't produced a mainstream hit. The studio lost its nerve, following *Call of Duty* into more cramped, urban environments and scripted follow-the-leader sequences.

Far Cry and *Crysis* both have reputations for deteriorating returns – the former throwing up too many painfully hard corridor levels in its second half, and the latter not so much jumping the shark as splitting open a volcano full of aliens as it reached its finale.

For a while it looked as if Crytek itself might follow the same, sorry trajectory, failing to match its early promise as it reached maturation. Longtime CEO Cevat Yerli, whose first designed game had been an economics simulation, became a fervent fan of free-to-play. In 2014



LASTING LEGACY

How Crytek's games infiltrated and left their mark on others

KEY

Crytek

Crytek satellite studios

Ubisoft

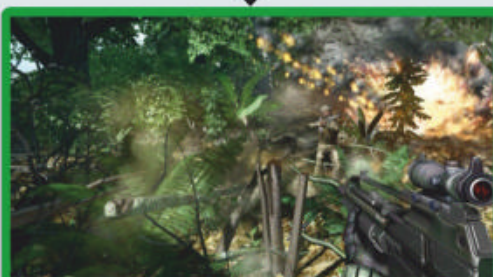
THQ

Deep Silver



FAR CRY

Blue oceans and responsive AI made Crytek's name.



CRYSIS

The peak of those early experiments in freeform shooting.



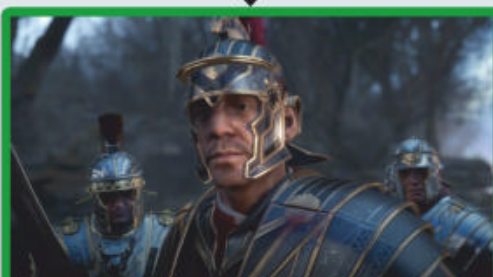
CRYSIS 2

New York promised vertical space, but left few happy.



CRYSIS 3

A compromise between open levels and linear drama.



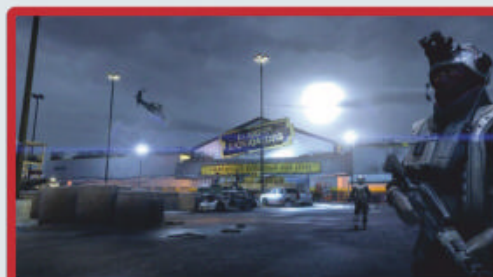
RYSE: SON OF ROME

The hack 'n' slash QTE-fest no-one asked for. Dead end.



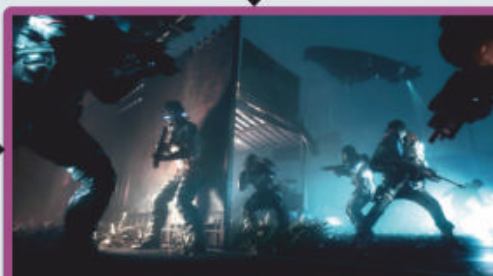
CRYSIS WARHEAD

This Kiev-developed spin-off went less doolally in its latter stages.



HOMEFRONT

Much-maligned COD rip-off from THQ.



HOMEFRONT: THE REVOLUTION

No longer bears Crytek's name, but carries its identity.



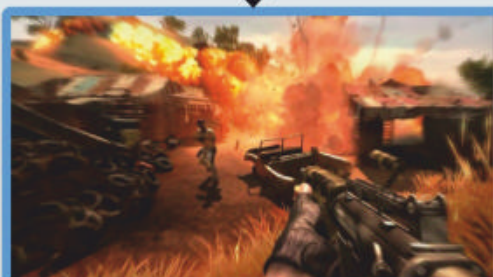
WARFACE

Crytek's first foray into service shooters.



HUNT: SHOWDOWN

Masterful, multiplayer sandbox murder in a world of horrifying monsters.



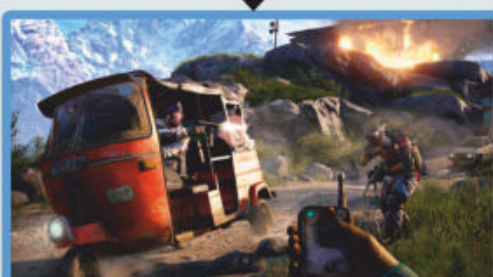
FAR CRY 2

Ubisoft took the series in-house for this divisive African misadventure.



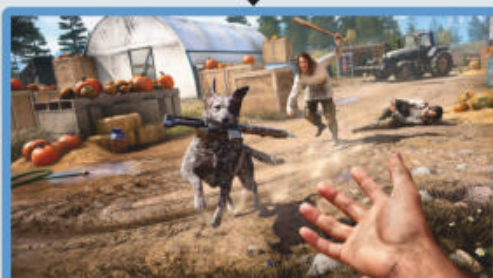
FAR CRY 3

The definition of insane, open-world action.



FAR CRY 4

Turned the angry wildlife up to 11 in a lush mountain setting.



FAR CRY 5

Indulged in more RPG-style sprawl than ever, with mixed results.

» and again in 2016, rumours circulated that Crytek hadn't been paying staff at some of its studios, and it looked as if the company was about to be on the verge of collapse.

In the end, though, CryEngine helped save its creators. Amazon bought access to the renowned tech for use in its own Lumberyard toolset, in a deal that reportedly topped \$50 million. And Crytek survived long enough to make its modern masterpiece.

BACK IN HATS

You can find pre-echoes of *Hunt: Showdown* in other games Crytek has greenlit. *Homefront: The Revolution* was sold off midway through development, but its guerrilla fighting style – in which you launched hit-and-run assaults against an occupying force, before scarpering – made it clear the developer was experimenting with action bubbles again. In *Hunt*, escape becomes more important than the battle itself: you play with persistent characters, and so it's a valid tactic to pull out of a bounty hunt that gets too dicey and 'live to die another day', as the game puts it.

The way Crytek passes information to players has changed, however. The studio practically invented enemy marking, dotting *Far Cry*'s postcard paradise with towers you could climb to survey enemy positions with your binoculars. The process only became more elaborate in the *Crysis* games, where designers worked according to the mantra of *veni, vidi, vici*: I came, I saw, I conquered. To succeed against overwhelming odds, players would first have to observe and plan before heading into action.

Yet *Crysis* also offered an intriguing alternative: Delta mode, in which the enemies spoke exclusively in Korean, robbing you of crucial information about what they'd seen and where they were going. With *Hunt*, that deprivation of



information has come to the fore. Thick forest and night missions mean line of sight is inconsistent at best. There's no minimap, nor a tally of the players remaining in the game. Even the enemies you spot vanish into vast barns full of abandoned farming equipment, leaving you none the wiser about their position.

Yet the game is still to gather information – it's simply the sense that's changed.

Hunt's maps are filled with audio cues that the discerning listener can use to determine the placement and status of their enemies: distant splashing, the creak of a door, the nearby lighting of a molotov. The

form is new, but the plan is as it always was: to observe, conquer, and then get out alive.

Crytek no longer leads the world in graphics. Nobody does, really – PC gaming isn't defined by shocking leaps in photorealism the way it was back then. But its design identity has endured longer than any rendering effect. ■

Jeremy Peel

THE WAY CRYTEK PASSES INFORMATION TO PLAYERS HAS CHANGED, HOWEVER

ABOVE: Believe it or not, both of us walked away from this.

BELOW LEFT: Two of these squaddies later starred in their own games. One became alien-food.

BELOW: Not the glory days for female representation in shooters.



VYPER PRO

15.6" Matte Full HD Screen
Intel® Core™ i7-10875H
16GB Corsair 2400MHz
8GB GeForce RTX 2070 SUPER
1TB Intel® H10 NVMe SSD +
32GB Optane™
Genuine Windows 10 Home

This spec from
£1,819.99



PULSAR ELITE

PCS WRAITH RGB
Intel® Core™ i5-9400F
ASUS® PRIME Z390-P
8GB Corsair VENGEANCE 2400MHz
6GB GEFORCE GTX 1660
Genuine Windows 10 Home

This spec from
£849.99



DEFIANCE PRO

17.3" Matte Full HD 144Hz Screen
Intel® Core™ i7-10875H
16GB Corsair 2133MHz
8GB GeForce RTX 2070 Max-Q
1TB Intel® H10 NVMe SSD
+ 32GB Optane™
Genuine Windows 10 Home

This spec from
£1,649.99



PULSAR ULTRA

CORSAIR OBSIDIAN 500D RGB
Intel® Core™ i9-9900K
Gigabyte Z390 AORUS Master
32GB Corsair VENGEANCE 3000MHz
11GB GEFORCE RTX 2080 Ti
Genuine Windows 10 Home

This spec from
£2,849.99



GET A FURTHER £15 OFF WITH
THIS EXCLUSIVE VOUCHER CODE:

PGA20

0333 011 7000



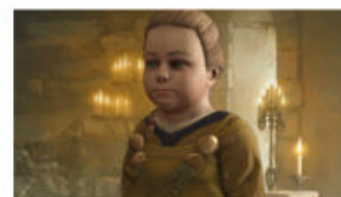
CUSTOM GAMING DESKTOPS & LAPTOPS

ORDER ONLINE NOW AT

WWW.PCSPECIALIST.CO.UK



Crusader Kings III



NEED TO KNOW

RELEASE
September 1, 2020

DEVELOPER
Paradox Interactive

PUBLISHER
In-house

LINK
crusaderkings.com

CRUSADER KINGS III

Paradox's historical sandbox sticks to what it does best

History won't remember my tenure as Alba's monarch fondly. A poisoned brother, nieces and nephews fed to woodland critters, political rivals turned into 'art' in my torture chamber – and let's not go into all the STDs or that time I wanted to have sex with a shoe. Yeah, this is *Crusader Kings* all right.

After racking up a litany of misdeeds that would be far too long – and nauseating – to list here, I can report that *Crusader Kings III* still lets you play an absolute monster. You can be chivalrous and pious, too, but it's not as fun to read about. Indeed, almost everything you can say about its predecessor is true here, but it doesn't feel like a repeat.

Crusader Kings III starts where the last game left off. Not chronologically, of course, but in terms of its systems. Over the course of nearly a decade, Paradox has lavished its historical soap opera with DLC, and almost all of what it added is still present in this new base game. The difference is that it's all been designed holistically instead of slotted in piecemeal.

Everything just feels like it fits together better. It still throws lots of crises and notifications and decade-spanning wars at you, but it's a lot less jarring this time around because it seems like more consideration has been put into how all of these systems interact with each other. It's also a hell of a lot better at explaining what the heck is going on.

At the time of writing, it's still months away from completion, but already the new player experience is much improved over its predecessor. The tutorial is fine, if a bit dull and wordy, but it's the nested tooltips, which are both concise and informative, and UI changes that do the heavy lifting. The best way to learn, however, is still jumping in and making a

mess of things. Starting small, as a minor noble, will let you dip your toes in without taking on too much responsibility, and this time there's still a lot that you can do even if you're a nobody. This is largely down to the lifestyle system, which weaves its way into every facet of *Crusader Kings III*, giving it most of its RPG clout.

BETTER, STRONGER, FASTER

Every character, whether you're playing them or not, has a lifestyle. In RPG parlance, they're classes. You can pick whatever you want, but you'll get a bonus if your choice lines up with their childhood experiences. If your ruler was a rambunctious little hellion as a youth, you might be best served picking the martial lifestyle; though an entirely different one might be even more beneficial depending on the state of your dynasty.

Lifestyles are further split into three trees, which in turn have an associated focus that gives you additional thematic bonuses as long as it's selected. In keeping with *Crusader Kings III*'s 'anything goes' approach, you don't have to pick the focus connected to the tree you're progressing down, and you can change trees, foci and even lifestyles as you wish.

A lot of the perks you get from the trees are pretty forgettable, like shaving 20 percent off the cost of a casus belli. Others, however, give you entirely new abilities, or huge bonuses that can mean the difference between dying of gout at 50 and being a beefcake warrior at 70. Together, they flesh out your ruler, making them an original, specialised character that you've designed over decades.

Whatever you pick, the game adapts. If you're all about guile and intrigue, you'll be making a lot of shady deals and sneaking around, but at the same time you'll be coming across all sorts of emergent events that take your proclivities into account. The level of reactivity has been a surprise, giving each lifestyle a distinct narrative flavour that's further enhanced by your own choices and random chance. ➤

PLAYED IT

THE BEST WAY TO LEARN IS STILL JUMPING IN AND MAKING A MESS OF THINGS

Crusader Kings III

➤ STRINGS ATTACHED

I'm partial to the intrigue lifestyles because they really let you make the most of *Crusader Kings III*'s system of schemes and hooks. Schemes, known as plots in the last game, run the gamut from nurturing a friendship to planning a murder, and like most things there's a mechanical and roleplaying component. They move forward every month, and each step the game makes a new calculation based on you and your agents' skills versus your target's resistance. At the tenth step, regardless of those things, you'll try to execute the scheme. If you fail but don't get caught, it just starts again.

To help you with your schemes, you can gather up secrets about your fellow nobles and courtiers. Maybe they're a heretic, or having an affair, or hiding a huge roster of illegitimate bastards. These secrets give you a hook that you can use to exploit them. When I was broke, I liked to blackmail them for hard cash, but they can also be used to force nobles to back your candidate in an election.

My greatest victory wasn't on the battlefield – it was when I made my ten greatest enemies endorse my son as the next in line to the throne, all because they were stepping out on their spouses. Now that's power. But it also comes at a cost. There's everyone hating you, of course, but it also might have an impact on your emotional and mental state.

Stress is a new feature that encourages you to embrace your character and act appropriately. A content and compassionate ruler would be unlikely to shame people or use an error in judgement for blackmail, so picking those options generates stress. The more stressed you become, the closer you get to a breakdown. You'll get chances to alleviate the stress, but the cure can be just as bad as the ailment. Solutions include booze, brothels, or flagellation. Or you might take up jogging. None of this feels like a punishment. It nudges you into roleplaying, but breaking free of those expectations can also be liberating, leading to new twists and traits.

I just wanted everyone to be happy, which is why my rulers have slept with everyone. I was being blackmailed a lot,

but it doesn't have to be that way. How people perceive everything from affairs to eating human flesh depends on their faith, and that can be customised.

RECRUITMENT DRIVE

Monarchs love a good scrap, so I've seen a lot of war. I could probably do with a bit less of it, honestly, because the roleplaying and politicking is still the most engaging part of the game. The good news is that Paradox has cut down on a lot of the faffing around you need to do to conclude these bloody struggles. The map is larger and more spread out, but there are fewer military targets to worry about.

Instead of needing to gobble up a bunch of baronies before you can take over a county, you can now just head straight for the castles, forts or whatever defensive buildings the ruler has erected. Other holdings, like towns and churches, get conquered automatically when you take the castle. Generally, there's just a lot less tidying up to do.

Recruiting armies is simpler, too. When you raise the levies – your crappy peasant troops – they all appear automatically at the rally point instead of being spread out all over your empire. This does mean you can't thwart an enemy by picking off all their tiny levy armies before they can unite, but it's a sacrifice I've been more than happy to make for the greatly improved pace. And other decisions fill the gap, like picking a limited number of professional man-at-arms regiments or recruiting knights who are all gifted with preternatural fighting skills. These knights are also members of your court, so they can also become embroiled in intrigue.

That's really been the theme of my 30-odd hours of dynastic shenanigans, which has been spread across a trio of houses and a few hundred years. I've been tasked with making loads of decisions, probably more so than in the previous game, but they've also felt bigger and more impactful, echoing across a multitude of complex systems and tying everything together. These changes to the formula are subtle, though, with the big picture stuff hewing very close to *Crusader Kings II*. Paradox sequels tend to be iterative, so it's not a surprise, but this is the follow-up to one of the most novel strategy games around; part of me was hoping for something bolder. That said, I've only scraped the surface, and it's already making a convincing argument for sticking to what it knows.

Fraser Brown

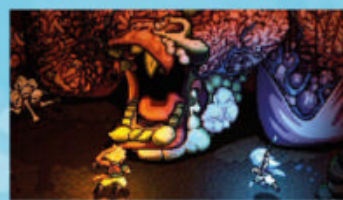
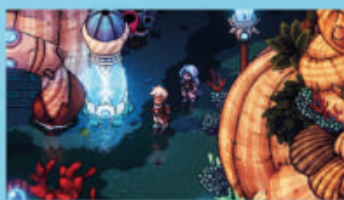
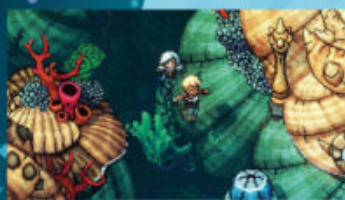


STRESS IS A NEW FEATURE THAT ENCOURAGES YOU TO EMBRACE YOUR CHARACTER



PREVIEW

Sea of Stars



NEED TO KNOW

RELEASE
2022

DEVELOPER
Sabotage Studio

PUBLISHER
In-house

LINK
seaofstarsgame.co

SEA OF STARS

PLAYED
IT

A retro RPG in a strange, watery world

The creative director of *Sea of Stars*, Thierry Boulanger, is making the kind of game he dreamed of as a kid: a turn-based, NES-esque RPG, but with the crispness, seamlessness, and graphical magic tricks available today. It's still two years away from release, but its pixel world looks fantastic already.

One modern twist is the dynamic lighting system. In a remote demo, I watched Boulanger cycle the time of day, rotating the shadows and swapping the sun and moon with a smooth transition from warm to cool light. I'm still enchanted by the

novelty of pixel art that behaves like a 3D world, and this isn't just something we'll see in tech demos: manipulating the time of day will be a key skill.

The main characters represent sun and moon magic, and they'll combine powers to solve puzzles and defeat monsters. It sounds a little quaint, but it's not unimaginative, and even a little bleak in places. In one scene I saw, the heroes stumble into a room that seems to be full of baby gorilla butts. It turns out the gorillas are all sticking their heads through the floor, watching their mother who's been trapped by a gruesome necromantic monster below. Poor gorillas!

Tyler Wilde

TIME TO STEP OFF THAT TREADMILL

With so many demands from work, home and family, there never seem to be enough hours in the day for you. Why not press pause once in a while, curl up with your favourite magazine and put a little oasis of 'you' in your day.



PRESS PAUSE
ENJOY A MAGAZINE MOMENT

To find out more about Press Pause, visit:
pauseyourday.co.uk

PREVIEW

Going Under



NEED TO KNOW

RELEASE
2020

DEVELOPER
Aggro Crab

PUBLISHER
Team17 Digital

LINK
aggrocrab.com/going-under

GOING UNDER

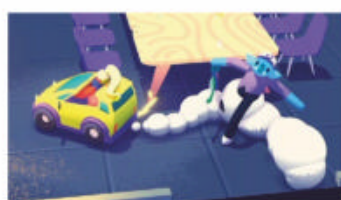
A roguelike through a dungeon of failed tech startups

Could there be anything worse than unpaid internships? How about unpaid internships where you have to clear basements filled with monsters? Unfortunately, that's your employment sitch in the corporate dungeon crawler *Going Under*. At least brawling your way through the bowels of an office building is good exposure.

PLAYED
IT

You play as Jackie, a young woman who's started an internship as a marketing assistant at Fizzle Beverages. Your very first task is to clear out a bunch of goblins who have been nicking the company's office supplies. It's not an ideal first day at work, but it could be worse: you could be making the teas and coffees.

Fizzle Beverages' basement isn't just any corporate storage space – it also happens to be the cursed ruins of countless failed tech start-ups. Its ex-employees are condemned to wander procedurally generated underground



boardrooms, lounge areas, and IT suites forever. Down here the goblins live, clustered in the remains of the brilliantly named 'Joblin'.

Going Under's dungeons are full of objects that can be used as weapons. There are classic swords and spiky clubs, but the best instruments of destruction down here are office supplies. Giant pencils for poking, plastic knives for stabbing, canned coffee grenades, plant pots, computer keyboards, laptops, yoga balls, giant staplers, and more. I reached a moment of utter joy as I picked up a heavy computer monitor and lobbed it across the room, completely wiping out a beefy goblin. Items can break easily, so you'll be dropping and picking up any items that are readily available. The combat is

scrappy, and experimenting with different weapons keeps things fresh.

INTERN-BASED

As you make your way through the dungeons, there are special storage cupboards that house useful power-ups. There's also a company café where you can buy an extortionately expensive cup of 'Fizzle Classic', or some avocado toast with flavour text that reads "a delicious alternative to home ownership". There's a great sense of humour throughout, with an eye particularly towards skewing corporations and all the nonsense that comes with them.

Going Under's 3D art is a whole world away from the dingy dungeons of other roguelikes. There's a burst of colour as you thump an enemy on the head, and an explosion of money when they die. The environments are playful, like using a whiteboard as a barricade or having postal drones drop packages of new abilities for you – it's delightfully silly. I can't wait to see what other failed dating apps and cryptocurrency corporations lie in wait.

Rachel Watts

AVACADO TOAST – "A DELICIOUS ALTERNATIVE TO HOME OWNERSHIP"



1,500
FOOTBALL PITCHES
EVERY DAY!

Did you know that European forests, which provide wood for making paper and many other products, have grown by 44,000km² over the past 10 years? That's more than 1,500 football pitches every day![†]

Love magazines? You'll love them even more knowing they're made from natural, renewable and recyclable wood



[†]UNFAO, Global Forest Resources Assessment 2005-2015.

Two Sides is a global initiative promoting the responsible use of print and paper which, when sourced from certified or sustainably managed forests, is a uniquely powerful and natural communications medium.

There are some great reasons to **#LovePaper**
Discover them now,
twosides.info



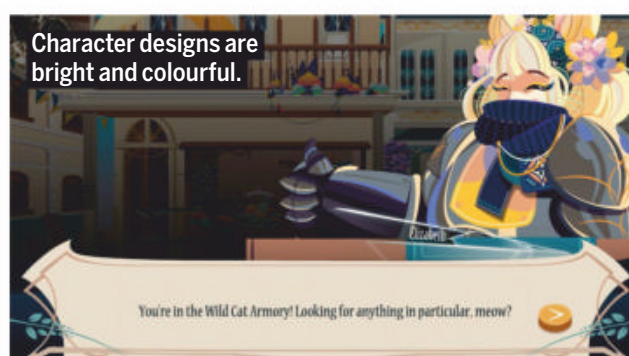
PREVIEW

Cris Tales

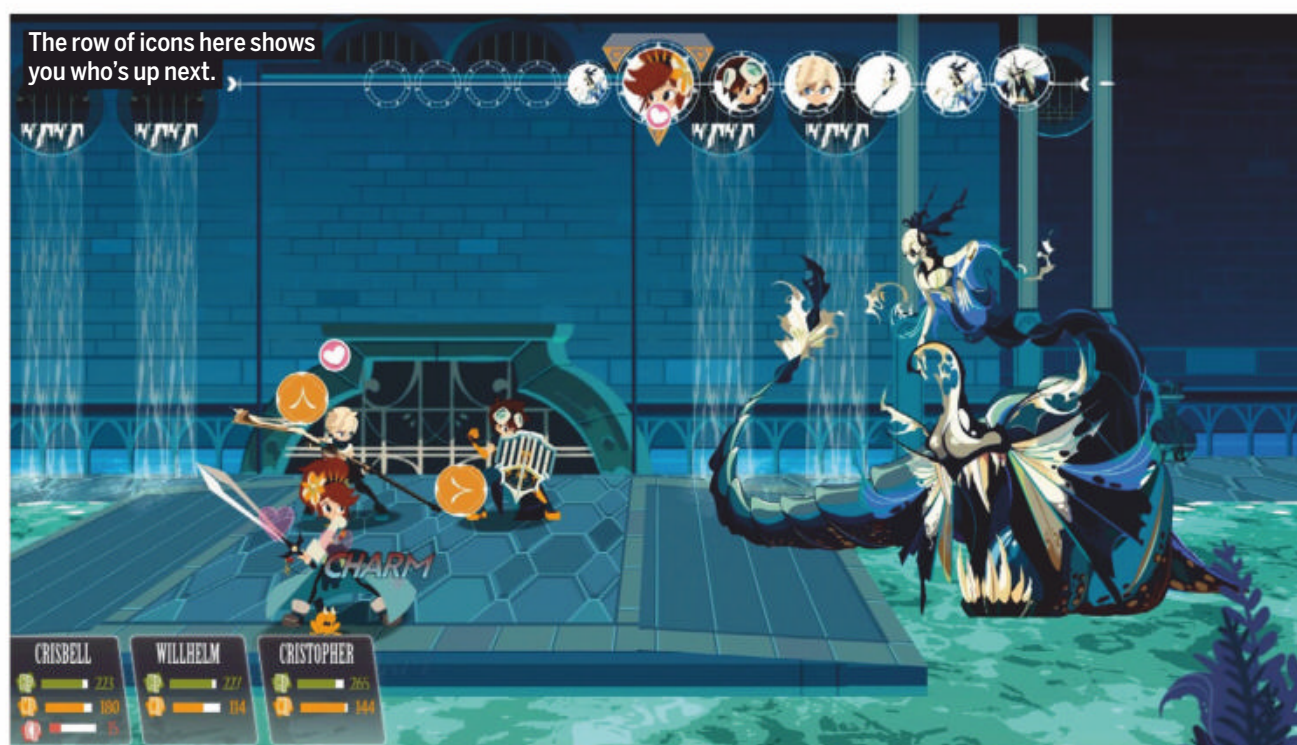
Notice how the slums are flooded in the future.

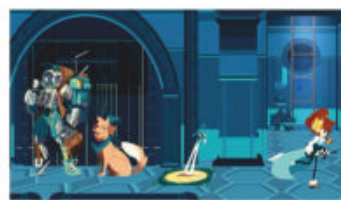


Character designs are bright and colourful.



The row of icons here shows you who's up next.





NEED TO KNOW

RELEASE
TBC 2020

DEVELOPER
Dreams Uncorporated, SYCK

PUBLISHER
Modus Games

LINK
cris Talesgame.com

CRIS TALES

A hand-animated RPG that pays tribute to Japanese classics

The big gimmick in the JRPG-inspired *Cris Tales* is being able to control time. Say you're fighting an enemy clad in metal armour. Cast a water spell on him, fast forward time, and the armour will be rusty and useless. It's a neat idea in a game full of them.

Hero Crisbell can see the past, present and future all at once, both in battle and while exploring the game's beautiful, delicately hand-animated world. Inspired by *Chrono Trigger*, *Final Fantasy*, *Persona*, and the *Paper Mario* series, the game mixes tactical turn-based combat with side-scrolling, semi-3D exploration.

Crisbell's time manipulation powers are useful in a scrap. Poison an enemy and you don't have to wait for it to sap their health: just jump forward in time and they'll take all the damage at once. Or you can throw an enemy into the future and watch as they grow old, making them easier to defeat.

Although *Cris Tales* is turn-based, the combat has some timing-based elements. Press a button at just the right time, during an attack or special ability, and you'll pull off a critical hit. Time it perfectly and you'll inflict additional damage or even a debuff. You can also parry and block, which the developer says will be tricky.

CRIS CROSSED

The combat looks great, but it's when she's not fighting that Crisbell's time powers become really interesting. *Cris Tales* has a *Final Fantasy*-style overworld

map, which is something I miss from the role-playing genre. And as she journeys across this beautiful, papery-looking map, she and her party visit an interesting city called Saint Clarity.

This is the classic JRPG divided town, with the rich and privileged living in the gleaming city above, and the poor living below. Although this idea is taken to an extreme, with the poorer citizens periodically being drenched by waves of sewage from up top.

Not exactly subtle, and *Cris Tales*' art is so lovely that even the so-called slums look quite nice, but it's what you'd expect from a self-described love letter to JRPGs. As Crisbell wanders the streets of the city, the screen is divided into three, showing three different versions of it in the past, the present, and the future.

This means you can see what the city once was, and what it'll become if it continues along its current path. Like, what happens if you keep dumping sewer water on a place where people live? If you gaze into the future you'll see the slums are by then fully submerged, abandoned, and in ruins. Thankfully, it's a future you still have time to prevent.

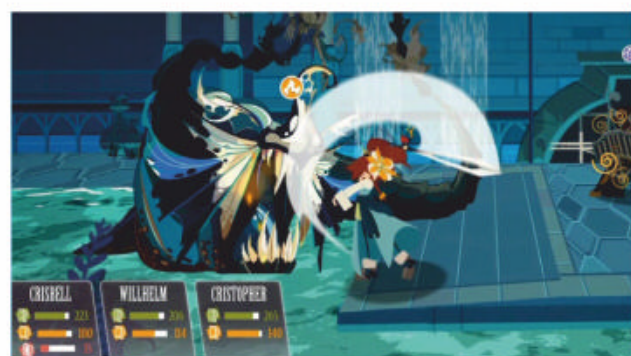
There are smaller stories to find too. On a street you see a young child in the past, a teenage boy in the present, and... nothing in the future.

Because he won't survive. It's a quietly upsetting thing to discover, but through a side quest you can alter the future and save him. It's lovely to see him alive and well in the future afterwards.

And there are dungeons, of course. Crisbell and her crew descend into Saint Clarity's sewers, as part of a quest to deal with that sewage problem, and find themselves in a maze of grimy waterways filled with sentient slimes, dodging waves of water. There's a boss too, a massive sludge monster, that will test your time-bending skills.

Cris Tales is a beautiful looking thing, and it sounds great too, with the kind of evocative, high-energy soundtrack you'd expect from a good JRPG. The voice acting is a little too peppy and anime-esque for my tastes, but I'm still really excited to discover more ways I'll get to meddle with events in the past, the present, and the future.

Andy Kelly



POISON AN ENEMY AND YOU DON'T HAVE TO WAIT FOR IT TO SAP THEIR HEALTH

PREVIEW

F1 2020



NEED TO KNOW

RELEASE
July 10, 2020

DEVELOPER
Codemasters

PUBLISHER
In-house

LINK
codemasters.com

F1 2020

Take your own Formula 1 team to victory

We awarded *F1 2019* an impressive 91 percent in our review last year. Codemasters elevated its racing series with the inclusion of F2 racing, and a fun, story-driven career mode. Not much changed in terms of visuals or handling, but the package was a big improvement over previous entries in the series – and the next game is taking things further.

Now you can play through a whole ten-year career across multiple seasons, starting in F2 and working your way up to F1. But the big difference this time is being able to make your own team by creating a driver, hiring a teammate, choosing a sponsor, building facilities, and even selecting your engine supplier. This is probably the most dramatic overhaul of the game's career mode to date, taking the series into deeper role-playing territory.

As usual, Codemasters has secured all the appropriate licences. *F1 2020* will feature every official team and driver from this year's championship, and all the proper branding. The character models are impressive, with stars like Hamilton and Vettel looking eerily lifelike. There's an impressively high level of incidental detail here too, including crowds of reporters interviewing the drivers before a race. *F1 2020* also includes two new circuits: Vietnam's Hanoi Circuit and, making its first F1 appearance since 1985, Circuit Zandvoort in the Netherlands.

Circuit Zandvoort, which motorsport fans will know well, has two dramatic

banked corners, including one tilted at a nerve-racking 18 degrees, making you feel like you're in a corkscrew. With its abundance of blind corners, this is a challenging, technical and relentless course, and it's great to see it make an appearance here. As for Hanoi Circuit, this modern street track features some of the longest straights in all of F1, letting you reach terrifying top speeds.

If you aren't the most accomplished driver, and the thought of screaming around a track like that gives you the fear, *F1 2020* has you covered. A new accessible handling mode, which enables a series of assists, means you can enjoy the drama of F1 without worrying about spinning out constantly. This is a neat way of bringing new players into this typically unforgiving driving subgenre.

WINNING FORMULA

Elsewhere it's business as usual. Codemasters' F1 driving model is pretty much note-perfect, and has been for years, so it's perhaps no surprise to see no major changes here – accessible mode aside. It still feels great in your hands, whether you're using a wheel or a gamepad. It's twitchy and intense, as an F1 race should be, and carving a perfect line through an apex without losing control is always a thrill.

Several races in this year's F1 championship calendar have been postponed or cancelled due to the coronavirus outbreak, but Codemasters promises that *F1 2020* will still allow players to experience all 22 tracks – including Monaco and Albert Park – as if things went ahead as normal. A nice idea, which F1 fans missing their favourite sport this summer will get an extra kick out of.

F1 2020 is set for release in July, and it's looking like another great entry in the series. It has all the authentic presentation you'd expect from Codemasters, and the handling is a dream. But the real test will be that ambitious career mode. Building a team sounds fun, but how deep will it be? I'm not expecting something on the level of *Motorsport Manager*, but I would like something to sink my teeth into. The last game was superb, but it's heartening to see the developer not resting on its laurels and trying something different once again.

Andy Kelly

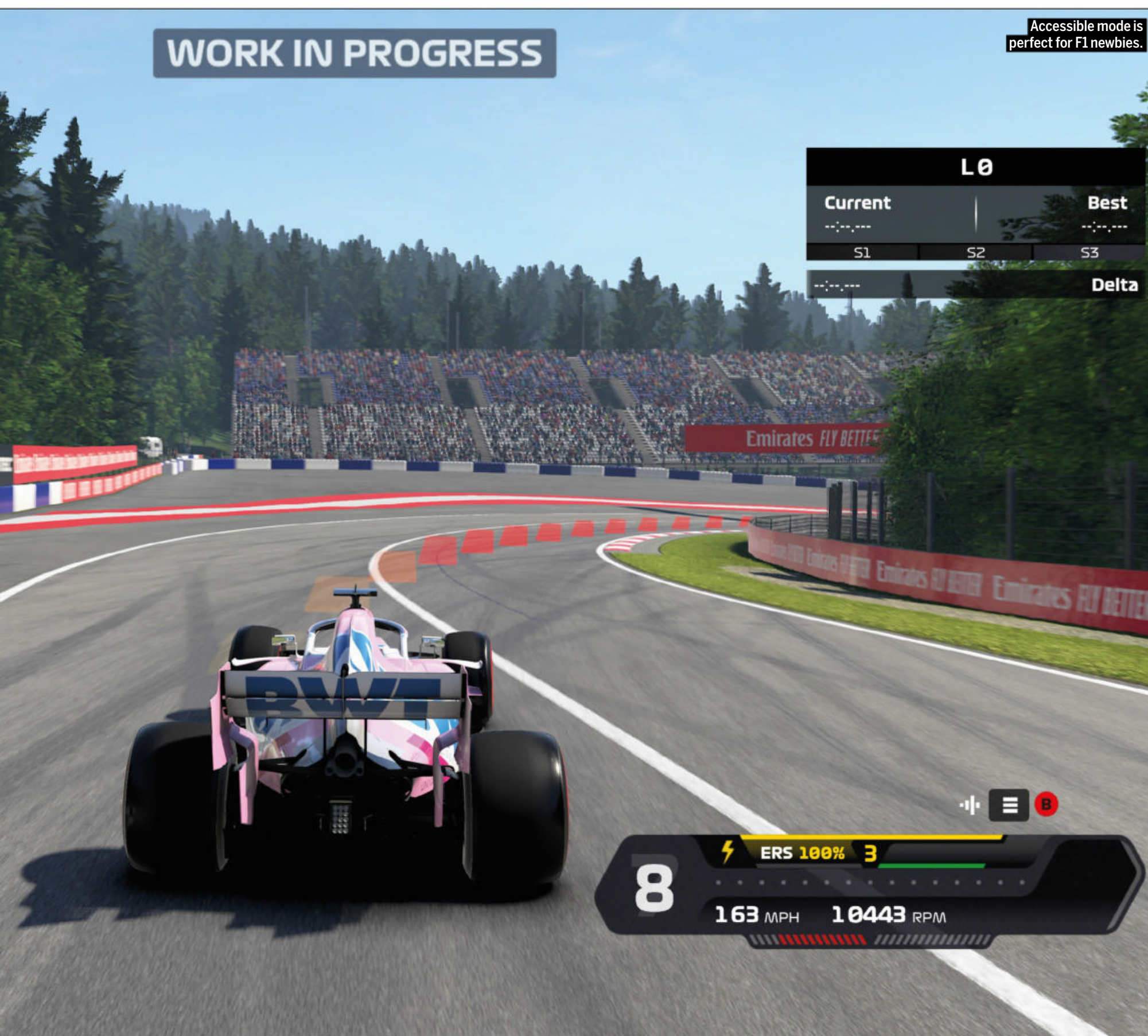
Default Ghost
ultrabrilliant



The unmistakable
pink livery of BWT.



THIS IS THE MOST DRAMATIC OVERHAUL OF THE GAME'S CAREER MODE TO DATE



PREVIEW

Beyond a Steel Sky

Hopefully you like Foster's smug face. We've got a lot of shots of it.



The first game came out over 25 years ago, in 1994.



Colourful, beautiful – and a dystopian nightmare.

Beyond a Steel Sky



NEED TO KNOW

RELEASE
TBC 2020

DEVELOPER
Revolution

PUBLISHER
In-house

LINK
revolution.co.uk

BEYOND A STEEL SKY

A new adventure from the creator of *Broken Sword*

You're introduced to Union City, the setting for this sequel to cult point-and-click adventure *Beneath a Steel Sky*, in the first act, and it's an impressive sight. After trudging through a sandstorm in the Gap – a post-apocalyptic name for the Aussie outback – hero Robert Foster crests a sand dune and finds the city looming ominously over him.

A forest of skyscrapers and smokestacks stretches for miles into the sky, circled by an impenetrable wall, and the scene is well and truly set. A boy, Milo, has gone missing, and the trail has led Foster here.

Beyond a Steel Sky is, as you might expect from Revolution, a fairly typical adventure game. You talk to people, pick up items, and solve multi-stage puzzles to progress.

The two hours I played had the slow, laid-back pace that I've come to associate with this developer. There's no urgency or time pressure, leaving you to explore at your own pace, getting a feel for the world and the people around you.

At the end of *Beneath a Steel Sky*, Foster left the running of the city in the hands of Joey, a sarcastic but fundamentally good-natured self-aware AI he built as a child living in the Gap. Now, years later, it seems Joey is regarded as some kind of deity.

In previous demos of the game, Revolution has only shown one area: a freight depot outside the city gates. But in this new hands-on preview build I'm finally able to enter the city itself.

Foster is posing as a dead man he found in the Gap named Graham Grundy, whose citizen ID he transfers to a chip in his hand. Everyone in Union City has one of these, and pretty much everything involves using a hand scanner.

SKY HIGH

When you enter, you're treated to a series of establishing shots of the city. It's a dramatic looking place, with a dizzying sense of scale. Look down and you can see networks of buildings and streets below the criss-crossed walkways; look up and those smokestacks you saw from afar in the desert seem even more massive.

Watchmen artist Dave Gibbons is *Beyond a Steel Sky*'s art director, and the game's toon-shaded visuals do a great job of replicating his distinctive drawing style.

I end up using Grundy's chip to access his apartment, where I find his wife and a bureaucratic city official waiting. Apparently I (well, Graham) have been absent from work for several days, which turns out to be a severe crime in this supposedly utopian city.

Next thing I know I'm searching his flat for clues about him, so I can convince the official that I'm actually him. His wife, clearly scared of the city authorities, urges me to play along.

Nosing around in people's personal space is a staple of the adventure genre, and I end up knowing far too much about this dead Grundy guy.

He's a cleaner, he has a heart implant, and he and his wife sleep in separate bedrooms because their relationship is, unfortunately, on the rocks. Like the original, *Beyond a Steel Sky* has a very idiosyncratic, quirky sense of humour.

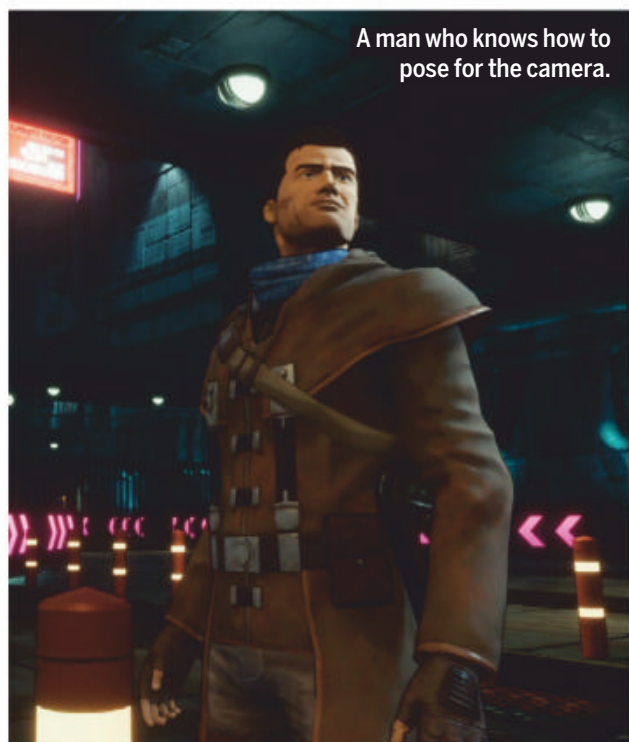
I mostly manage to convince the official that I'm Grundy, but I slip up a few times. A cute touch when I'm being grilled is Grundy's wife in the background, miming the correct answers. When I'm asked what my hobby is, she mimics clicking a camera.

The bureaucrat eventually leaves, but I can tell his suspicions have been raised. However, before I can see what happens next, the demo ends. Foster is convinced Grundy was involved in Milo's kidnapping, but I guess I'll have to wait for the finished game to find out if that's the case.

Andy Kelly

PLAYED IT

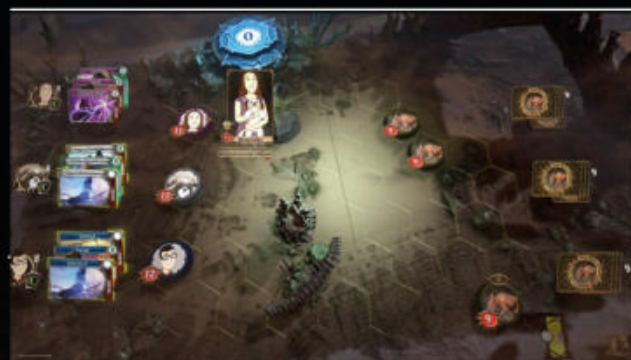
A man who knows how to pose for the camera.



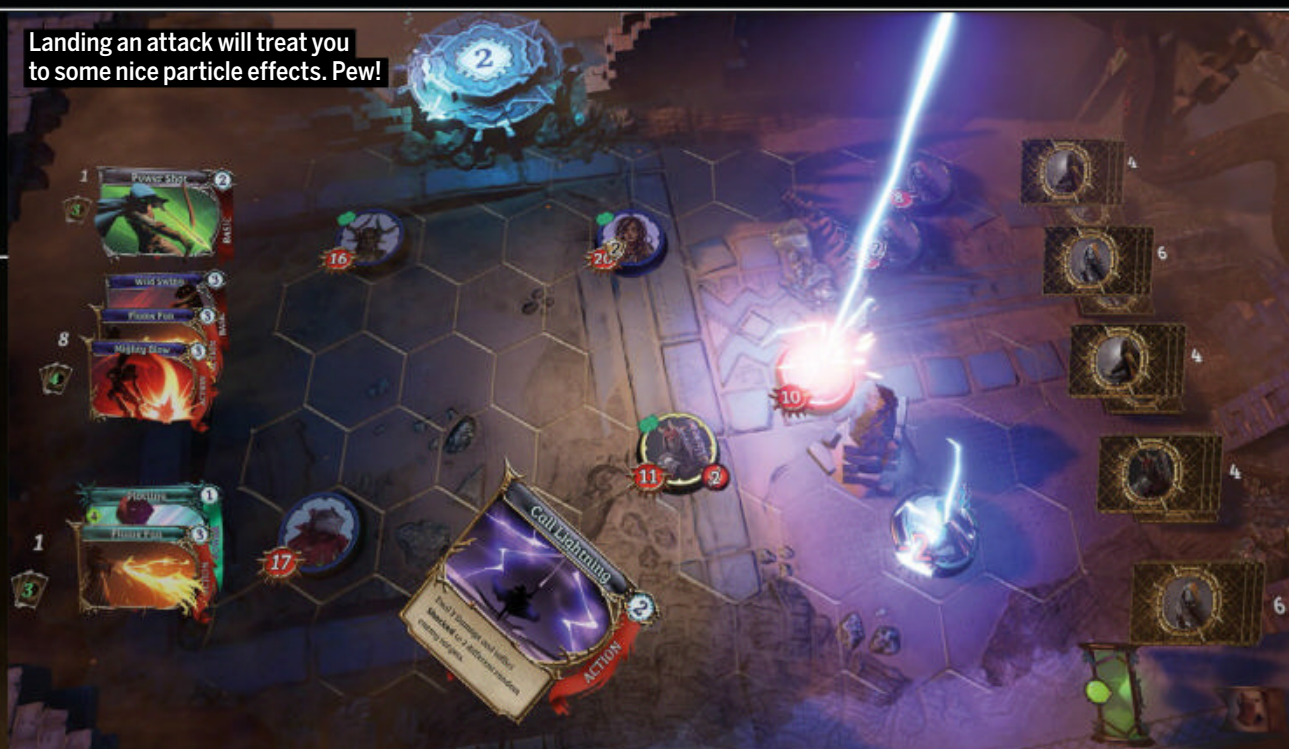
FOSTER IS POSING AS A DEAD MAN HE FOUND IN THE GAP NAMED GRAHAM GRUNDY

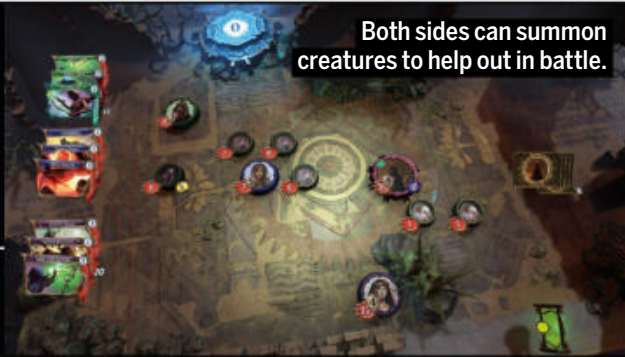
EARLY ACCESS PREVIEW

Trials of Fire



Landing an attack will treat you to some nice particle effects. Pew!





NEED TO KNOW

EXPECT TO PAY
£12.39

DEVELOPER
Whatboy Games

PUBLISHER
Whatboy Games

LINK
whatboy.com/game

TRIALS OF FIRE

A deckbuilding roguelike that's ready to slay the competition

Let's shoo the elephant out of this room immediately: yes, any description of *Trials of Fire* is going to include both 'roguelike' and 'deckbuilder'. And yes, that means I'm legally obliged to namedrop the game which sits atop this subgenre with all the weight of one of Hannibal's pachyderm pals.

After half an hour with *Trials of Fire*, though, I was ready to wash the words 'Slay' and 'Spire' out of my mouth. This was around the time of my second battle, which plays out on a hex-based grid, meaning positioning is just as important as which cards are in your hand. Spell attacks hit the board in set patterns, beams shooting along a diagonal and fireballs leaving a halo of destruction around a central point. There's cover that blocks line of sight for archers, and adjacency bonuses to think about: if enemies manage to surround you, you're in trouble, because each melee attack triggers a free follow-up 'combo strike' from their adjacent allies. Luckily, you're not alone – and this rule cuts both ways.

CARD CARRYING

See, *Trials of Fire* actually gives you three decks to build – one for each of the heroes you lead on a quest across its post-apocalyptic fantasy world. Before beginning a fresh run, you gather your party from a selection of robed enchantresses, reptilian assassins and rodent alchemists, all with their own starter decks and equipment slots (while a

warrior might be able to comfortably wear heavy armour and double-fist swords, a sorcering type might max out at light armour but offer four slots for magic staves and spellbooks).

This equipment, earned from battle and bought from merchants in the game's overworld, is one of two ways you build out each hero's deck – equipping an axe will chuck in an attack card or two, armour can add anything from a simple block to enchantments. The other, naturally, is levelling up. You're offered a selection of four cards to replace one of your starters, ensuring the deck doesn't just keep swelling as you progress.

It's as close to RPG party management as it is traditional deckbuilding – you've got the solid core of levelled abilities, combined with the more fluid inventory of abilities that can be given to any compatible character. "The original idea was to try and condense a lot of the stuff about a big 60-70 hour RPG – games I really like but don't have a lot of time to play a lot these days – to compress that into something more short-form," says game director Adam Doherty. "And the roguelike structure is a great fit for that – you can get through an adventure in two or three hours."

In its current Early Access form, *Trials of Fire* boasts three standalone campaigns. The length and difficulty varies, but each offers a randomly-generated map of combat encounters and text events, à la the Fighting Fantasy gamebooks of Doherty's childhood or *FTL* or, yes, a certain spire-slaying card game. There are some good ones in there (I got scammed by a team of ratmen, earned my losses back by robbing a village then selling their own stuff right back to them in the marketplace) but it won't take many campaigns before you start to get déjà vu.

That might change by launch – as *Trials of Fire* heads into its final months of early access, the main focus is adding more campaigns, more heroes, cards, and encounters. But what's really important here is the card game beneath it all, which is absolutely bursting with ideas. I haven't even talked about crafting, or the shared mana pool, or any of the other cool things I could spend hours babbling about without once mentioning *Slay the Spire*... oops.

Alex Spencer

PLAYED IT

"YOU CAN GET THROUGH AN ADVENTURE IN TWO OR THREE HOURS"

SPACE ODYSSEY

Kerbal Space Program inspired us to explore an entire solar system. In **KERBAL SPACE PROGRAM 2**, that's just the beginning. *By Wes Fenlon*





LEFT: RoShambo for who presses the launch button?

I

don't know much about astrophysics, aerodynamics, or anything else to do with rocket science, but I *do* know how to tell when someone is trying very hard to avoid saying the words

'kerbal orgy'. New studio Intercept, which has taken the reins on *KSP*, is busy crafting a sequel, coming next year, that includes intergalactic travel, multiplayer and helpful tutorials for science-challenged players like me. Reading between the lines of my first look at *Kerbal Space Program 2*, the kerbals themselves are getting busy too.

Over the course of two days I spoke with the dev team about what's new in *Kerbal Space Program 2*, what's changed, and just as importantly what's *not* changed, to preserve the wonderful sense of accomplishment and discovery that defined one of PC gaming's greatest experiences. At no point did anyone say these little green explorers are so excited about intergalactic travel that they throw a spontaneous space orgy, but I'm here to tell you it's most definitely happening.

And honestly, I'm thrilled about it. It's hard, lonely work going where no kerbal has gone before, and they

deserve to celebrate – especially because that sweet, sweet space nooky is a key part of *Kerbal Space Program 2*'s vastly expanded progression into the unknown.

THE BIG BOOM

Ext: Space. The camera pans across a desert landscape, the faint flow of starlight refracting through a layer of atmosphere at the horizon. Stirring synth chords and a bass drum aren't quite reproducing Also sprach Zarathustra, but the tone is the same. Mysterious. Ominous? The vibe is unmistakably 2001.

Then, peeking out over the edge of a cliff, we see it – a colony on the dusty orange surface, futuristic apartment buildings on a lattice of steel support beams flanked by rows of solar panels and greenhouses. A long runway for space planes suggests how fresh supplies and colonists will reach this outpost on the planet Duna, while the ramp at the end of the runway immediately makes me want to ruin the ambiance by strapping a rocket to a rover and seeing how far it could jump. The kerbals, I think, would certainly understand.

Flying to the Mun and beyond is just the beginning of your progression through the solar system and, eventually, the galaxy. To reach those far-flung stars, you'll now be able to establish orbital and planetary colonies, staging grounds for the next leg of your cosmic journey.

"[Colonies are] capable of producing colonists through a method that we will not describe, for everyone's sake, after something that the player initiates called a 'boom event'," says lead designer Shana Markham. Throughout *Kerbal's* new career mode, which the developers have nicknamed 'adventure mode', making discoveries and unlocking new technologies will trigger these boom events, which kick off various effects across your civilisation. In a colony's nursery module, for example, that means making new colonists. "You know, discoveries make kerbals happy," Markham says.

The goal of adventure mode is to provide a far more ambitious campaign for players to embark on, building ships powerful enough to leave the solar system. The structure will include specific missions, but creative director Nate Simpson says these will feel more "compelling" than some of the first game's missions, which would direct you to fly to a specific latitude/longitude and trigger a part on your ship. "Those felt grindy. We're going out of our way to make the mission goals for adventure mode feel meaningful: real firsts that feel unique relative to every other goal in the game."

Simpson says adventure mode has a lot in common with the first game's science mode, which gave you unlimited funds but made you earn science points to advance the tech tree. In *KSP2*, the missions will be there for players who want them, but you can also set your own goals. "You'll begin to collect science and trigger boom events as you explore what's out there," Simpson says.

The campaign is "explicitly designed to be non-punitive" so you'll never reach a fail state where you've

ZOOM & ENHANCE

In 2019, fans screencapped an early, in-development flight UI from a monitor in a *KSP2* dev diary and set about scrutinising it. Let's take a magnifying glass to the more polished UI.



1. Your kerbals!

2. Individual g-force meter.

3. Velocity and altitude – These can be toggled to show velocity of a set target, and ground level instead of sea.

4. Atmosphere depth indicator.

5. Throttle.

6. Nav ball – A gutter around the nav ball makes the orientation markers easier to keep track of.

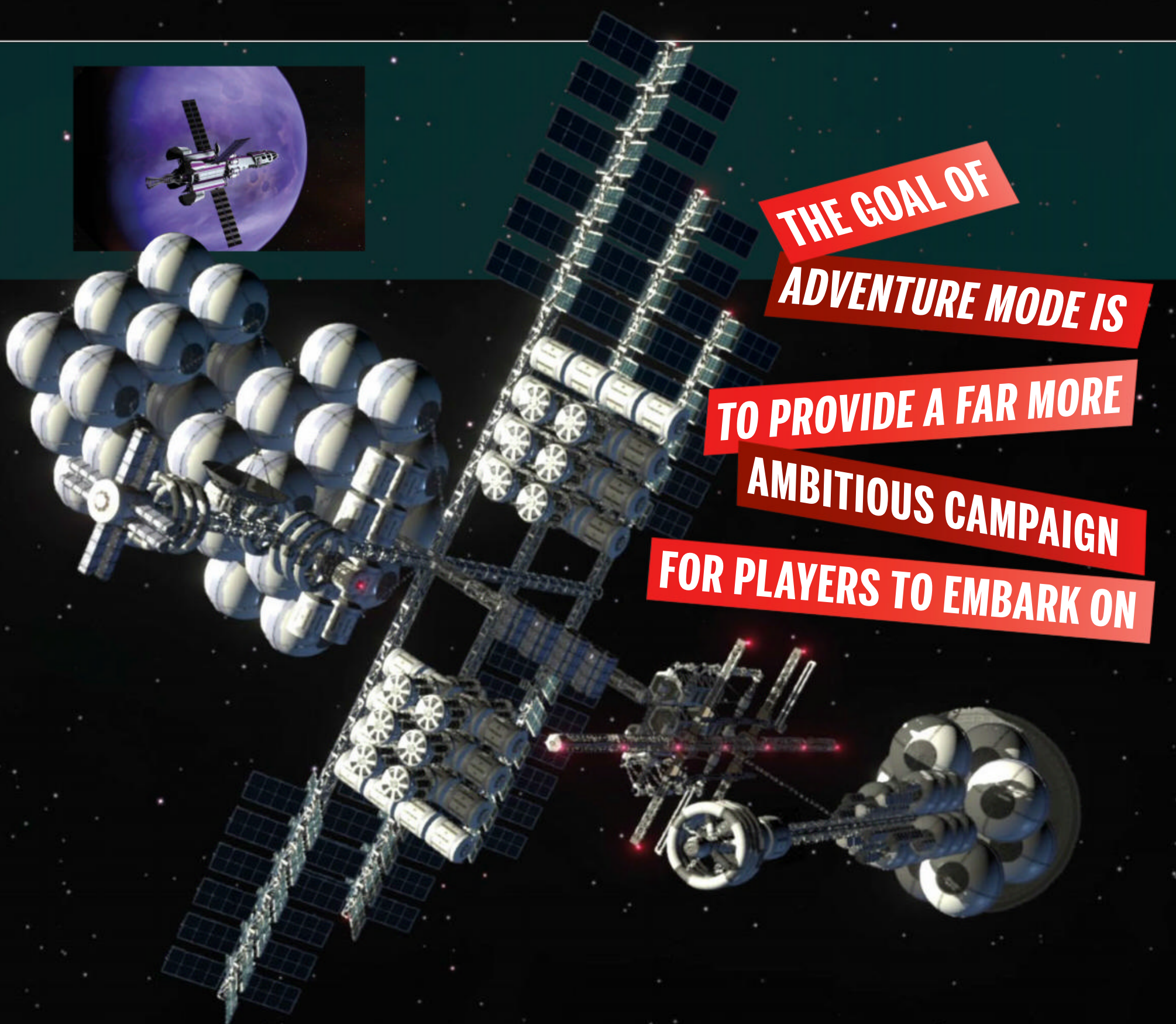
7. Orientation controller – As your ship moves, this model will point towards prograde, retrograde, etc to show your orientation.

8. Pause button – Take a break, or watch a tutorial.

9. The staging stack – Now in the same place as in the Vehicle Assembly Building.

10. Go button – No longer just an invisible hotkey.

11. Time zoom – Especially important for long flights.



run out of money and have to start over. Colonies won't require tons of micromanagement. If you leave one in a dangerous state, without enough power or food, it'll simply underperform. You can ignore it and keep on building that next rocket – the one sure to be your masterpiece, once you solve that little 'exploding on the launchpad' problem.

IT'S ROCKET SCIENCE

The more time you've spent in the original *Kerbal's* rocket building module, the more likely you'll gasp, hand covering your mouth to ward off surprise like it's an alien facehugger, when you see *Kerbal Space Program 2's* new tools. The interface is much refined at a glance: there's a new toolbar for finer control over objects you've selected, and parts within categories are now arranged into size tiers, which was a necessity for the "much higher part count in *KSP2*," says Simpson. "In early playtesting, the game became 'find the part you're looking for'."

The truly exciting features take a bit longer to spot. Once you start building with a part, those size categories

ABOVE: This ship's engine can propel it out of the Kerbol system

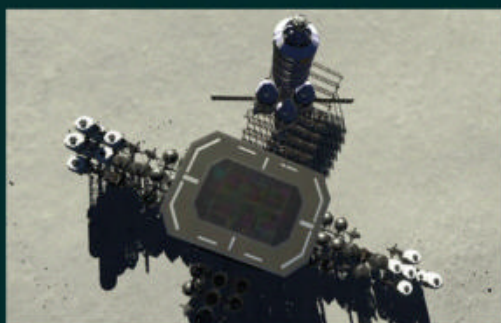
RIGHT: Look ma, no hands!



COVER FEATURE

Kerbal Space Program 2

**THIS IS THE MEGATON –
YOU CAN NOW BUILD
MULTIPLE ASSEMBLIES
IN THE SAME
WORKSPACE**



LEFT: Colonies will start simple, but offer new staging grounds out of Kerbin's atmosphere.



✖ will intelligently show you other parts that will fit on your rocket. There's a painter's palette that lets you colour your ship, customisation that will be essential for multiplayer. You can still rotate the camera 360 degrees, but you can also enter Blueprint mode, which gives you a perfectly 'flat' view to facilitate easy symmetry.

And – this is the megaton – you can now build multiple assemblies in the same workspace, rather than having to build a whole rocket in one go. "You can have a bunch of different highly complex elements that are free-floating," says Simpson. "Then combining them with the symmetry tools, you can make, for example, a radially mounted booster that has a lot of complexity in itself, and then attach or detach it willy nilly."

I watched Markham build a rocket, then a booster that would add the fuel and thrust needed to escape Kerbin's atmosphere. She simply highlighted the sub-assembly, clicked a hotkey to toggle three-way radial symmetry, and then attached three identical boosters to her ship.

You save an entire workspace instead of a specific ship, so you can create variants, with parts and boosters that are easy to swap out for different types of missions. This will come in especially handy as you start building colonies – you'll have to haul an unwieldy 'founder module' and other supplies to the build site, which will require solving a whole different set of physics problems.

The Vehicle Assembly Building has one more huge feature up its sleeve: a built-in trip planner, inspired by community members who created intricate charts to

show the potential velocity a rocket will need to reach targets like the Mun or Duna. These became so popular even the developers used them. "I'll be glad to not have a printout posted on my wall," says Markham.

For many *Kerbal* players, the early hours of the game are spent building a rocket and failing to reach your destination, without necessarily understanding why. "This is a way to tighten up that part of the iteration loop, by giving you real-time information about how far your vehicle can go in its current configuration," says Nate Simpson. The trip planner lets you set a destination and shows the best-case velocity for each stage of your rocket. As you swap out boosters and other parts, you can see how that will affect just how far you can fly.

'Potential' is the key word there, because the trip planner won't stop you from building spectacularly unstable, explosive rockets. Simpson says that with each addition *KSP2*'s developers have tried to distinguish between "constructive failure" and "frustrating failure". The new tools are meant to ensure failures allow you to learn something (or at least laugh at Jebediah Kerman's horrified face as your rocket corkscrews back to the ground at a thousand miles per hour).

"We don't want you to make the same mistake twice," Simpson says. "We want you to make lots of different mistakes." And now when you make those mistakes, *KSP 2* will have a lot more help to offer.

CLASS IN SESSION

Truly getting into *Kerbal Space Program* inevitably means spending hours delving into YouTube videos on rocket science and the game itself. Even if you have a physics degree, there's still a steep learning curve to understanding how the hell to work *Kerbal*'s interface. *KSP2* fixes some obvious oversights and makes the user interface as a whole more elegant.

Flight tools are now clustered together in more logical ways, with navigation on the left and time controls in the centre, a place of prominence that reflects how important fast forwarding will be as you start launching long interstellar journeys. There's now a pause button, which I fervently hope gets a tool-tip that says 'DON'T PANIC'.

Pausing will be one of the main ways players access *KSP2*'s greatly expanded tutorials, which include a mixture of interactive tutorials to guide you through using interface elements, and animations that give you a crash course in rocketry. The example I saw adeptly explained high thrust and low thrust rocket engines with a pair of kerbals biking up a steep hill (see left).

"We're trying to create a system where the player comes to the tutorial with the desire to gain a specific category of information," says Simpson. The tutorials will be context-aware, so if you pause after leaving the atmosphere, for example, you'll be able to easily pull up a tutorial on how to execute a gravity turn to escape Kerbin's orbit. You'll perform that manoeuvre in 'VR space', then go back to your real rocket and put what you learned to good use. Hopefully.

COACH KERBAL

KSP2's developers are putting tons of work into tutorials, to help teach the game's many systems and, you know, astrophysics. Tutorial animations for science concepts will explain big ideas with cute visual metaphors. In this one, Kerbals teach you about thrust using bicycles and a classic big guy, little guy setup.



1. Contemplating running out of fuel in space.
2. Puny arms (aka a low-thrust engine)
3. Comfier shoes for a longer, slower ride.

1. Confident his muscles can propel him out of Kerbin's atmosphere (aka up a hill)
2. Absolute unit biceps (not a scientific term)

LEFT: We have enough fuel to get home, right?

COVER FEATURE

Kerbal Space Program 2



» “The big thing for me is that these are actually bite-sized, so you have a whole tutorial section about going to the Mun, but it’s broken up into a large number of subsections so you can learn and practice a specific piece,” says Markham. And the game will make suggestions, too. When a launch inevitably goes awry, the post-flight report can highlight a tutorial based on what went wrong, so you’ll learn as you go.

Given how much of the joy of *Kerbal Space Program* lies in discovery and personal achievement, there is a risk in over-explaining. The dev team is well aware of that pitfall because they’ve already stumbled over it. In early tutorial iterations they leaned too far into telling players how to play – the most straightforward tutorial, after all, is to tell someone exactly what rocket parts they need to reach their goal – but realised that the gratification comes from figuring it out yourself. “The important thing is to provide people with puzzle pieces and informational context, but don’t tell them how to make the rocket. Concepts, not prescriptions,” Simpson says.

Kerbal Space Program 2 is clearly going to be a far easier game to start playing, but the changes to the UI and a proper campaign mode should excite its loyal kerbonauts, too. What I’m really dying to know – and unfortunately saw precious little of – is what awaits outside the Kerbol System, and what it’s going to be like exploring it with friends in multiplayer.

SPACE WALK WITH ME

I learned precious little about just how big *Kerbal Space Program 2* truly is, but I did come away from two days of interviews with some clues. The team is around 30 people and still growing, and that’s not including support from publisher Private Division’s QA team, who the developers praised as being seasoned *Kerbal* fans and very helpful. It’s easily the biggest team *Kerbal* has ever had behind it.

The ships you’ll eventually be able to build are immense. Shana Markham showed me a space station with an interstellar craft docked at it, and that ship wouldn’t be possible to construct on the planet’s surface (its engine would take up most of the Vehicle Assembly

Building, which places hard limits on the size of whatever you’re building). And I’d be more than surprised if the dev team isn’t keeping even grander ships with more advanced parts, secret for now.

The same goes for the planets you’ll explore and the types of challenges you’ll face landing on them in adventure mode. Simpson says they don’t want to mess with the Kerbol system, which fans know intimately at this point, so much of the environmental work must be going into other parts of the galaxy. There’s also an entirely new game system, called delivery routes, built around connecting your colonies.

“We’ve heard this concern many times from fans, and it’s something we wanted to address really early on in the design, ‘Once I’ve successfully performed a resource delivery between two distant locations, I’m not going to want to do it again’. So you establish those footholds and then let them run automatically,” Simpson says. “The thing that makes it an interesting experience, as you’re setting up all these individual resource collection operations, is the puzzle of successfully landing on and extracting the resources on every celestial body is ideally different enough that you’re having to solve a new set of physics problems with a new vehicle design. That’s even more the case with the new celestial bodies we’re bringing in on some of the other star systems.”

There are multiple solar systems, then, and tech and science advancements that continue well into the intergalactic phase of the game. With mod support already promised, it’s easy to imagine *Kerbal Space Program 2* lasting for years after launch, even before updates roll out (and launch is definitely just the beginning of this team’s plans). But how does multiplayer fit in? The developers wouldn’t tell me if it’s going to be small scale or more massively multiplayer. But while talking about colonies Simpson did reveal that “in co-op, if you and your friends have all established a base in a certain spot and are independently bringing different kinds of resources to store at that base, then you’ll be seeing a lot of people coming and going”.

I want to know more about *Kerbal 2* desperately. But at

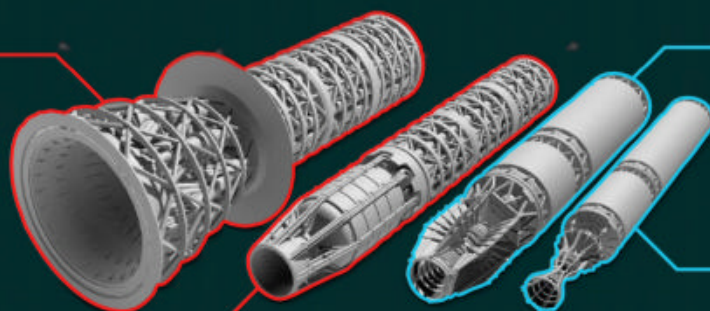
the same time I want to forget what I’ve already learned until it’s out in 2021 and I can play it, because that sense of discovery really is the magic of *Kerbal*. Even more than the new UI, the tutorials, the colonies, and everything else I saw, it’s this line from Nate Simpson that I keep thinking about, which makes me confident this team understands the spirit of *Kerbal* that lives underneath all the shiny new toys. “One of the things I loved about my first experience with *KSP1* was how quiet a universe it was,” he says. “And how I had to come to it.”

Let’s see what’s out there. ■

FUTURE TECH

There are no warp drives in *Kerbal Space Program 2*. So how will you reach far-flung star systems? The developers have consulted experts and heavily researched plausible future tech that could make interstellar travel possible. These rocket concepts represent some of those possibilities.

The ‘holy grail’ of propulsion tech, these ‘torchship’ engines are both high thrust and fuel efficient. The fuel type is still a secret.



These engines use metallic hydrogen, which could be twice as powerful as current rocket propellants. *KSP2* predicts how magnets could keep its 6000 kelvin heat from melting down the engine.



RIGHT: A VAB on this colony will let you build new rockets.



**“THE IMPORTANT THING IS TO
PROVIDE PEOPLE WITH
PUZZLE PIECES AND
INFORMATIONAL CONTEXT”**

ABOVE: Nuclear explosion make pretty ring.

RIGHT: Colonies are a new way to be expressive, with design tools similar to rockets.



SUBSCRIBE

And get a ***FREE*** Venom Sabre Universal Headset

WORTH
£30

KEY FEATURES

- Venom Sabre suitable for use with PC, PS4, Xbox One, and Nintendo Switch
- Large 50mm speakers and retractable omni-directional microphone
- Standard 3.5mm connection cable with splitter included
- Self-adjusting headband and cushioned ear cups





DIGITAL

Want instant access digitally?

SUBSCRIBE FROM JUST **£2.50** AN ISSUE, AND **SAVE 40%**
ONLINE AT myfavouritemagazines.co.uk/d20gaming

*Free gift not available with digital offer



PRINT

SUBSCRIBE TO **PC GAMER** TODAY FOR JUST **£30 FOR 6 MONTHS**

ONLINE AT myfavouritemagazines.co.uk/Sabre20

PLEASE USE THE FULL ADDRESS TO CLAIM YOUR FREE GIFTS

TERMS & CONDITIONS Prices and savings are compared to buying full priced print and digital issues. You will receive 13 issues in a year. You can write to us or call us to cancel your subscription within 14 days of purchase. Payment is non-refundable after the 14 day cancellation period unless exceptional circumstances apply. Your statutory rights are not affected. Prices correct at point of print and subject to change. Full details of the Direct Debit guarantee are available upon request. UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) or are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). Gift is only available for new UK subscribers. Gift is subject to availability. Please allow up to 60 days for the delivery of your gift. In the event of stocks being exhausted we reserve the right to replace with items of similar value. For full terms and conditions please visit: bit.ly/magtandc. Offer ends 31/08/2020



THE 50 BEST FREE GAMES

Freeware classics and indie darlings

By Andy Kelly, Chris Livingston,
Jody Macgregor, Tom Sykes,
Robin Valentine,
Rachel Watts



THE DOLL SHOP

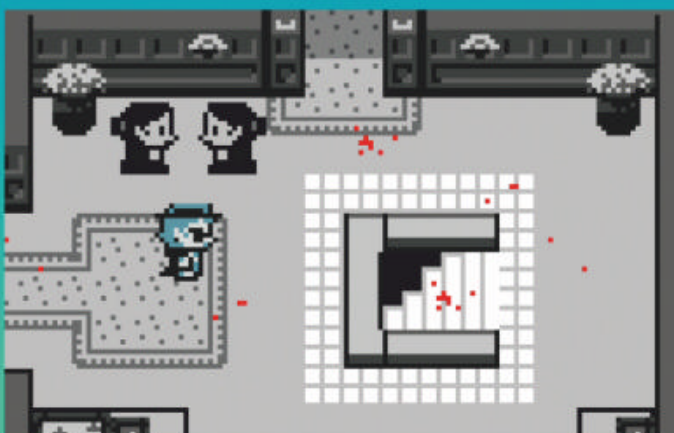
With the help of its art students, Atelier Sentô makes beautiful, free adventure games inspired by, and set in Japan.

Blending horror with romance, *The Doll Shop* transports you to a small village, which is being buried under a relentless snowfall. Fairly long, for a free game, it

takes the time to establish its world, before the darkness at its rotten core is revealed. It's all the more effective for it, telling a sinister story involving creepy handmade dolls, and the arrival of an old friend to your remote village. The art is sublime and the ending memorable in this handcrafted visual novel. **TS** ateliersento.itch.io/dollshop

LOCKHEART INDIGO

This is a sci-fi detective game that feels a lot like a JRPG. You've arrived at a vast mansion to solve the murder of its former owner, but locked doors and suspects stand in your way. The latter are dealt with via interrogations, in the form of turn-based chat battles. **TS** bit.ly/3dBYZZ7



THE SUPPER

Octavi Navarro's wonderful adventure games tell short, twisty stories set in evocative worlds. *The Supper* is a highlight: a dark story of revenge that brings to mind Sweeney Todd. You play as a peg-legged, tavern-owner, who has to serve three very special dishes to a trio of horrible pirates, who really should have checked the Food Standards rating first... **TS** pixelshuh.itch.io/the-supper



DELTARUNE: CHAPTER 1

This sorta sequel to *Undertale* is packed with memorable characters, catchy tunes, and emotive dialogue – despite being a fraction of its size. The start of a series, *Deltarune: Chapter 1* tells a fulfilling story in its own right, while building on the battles of the previous game. **TS** deltarune.com



LITTLE PARTY

The quiet and bittersweet story of a mother trying to reconnect with her daughter. You wander around quietly, checking on your daughter and her friends as they visit your woodland cabin for a party. It's a gentle and funny game about rekindling lost relationships. **RW** bit.ly/2Lkzv1F



ETERNAL HOME FLORISTRY

The tale of a hitman who gets taken in at a flower shop while he recovers from his injuries. The game's ability to tackle tough topics through the act of gentle flower arrangement is remarkable – a powerful and beautiful story. **RW** bit.ly/3duCs0q

THE TOP 50 FREE GAMES



COMMAND & CONQUER: RED ALERT

Now here's a rare thing: strategy with a sense of humour. From its infamously cheesy FMV cutscenes to its brilliantly bizarre weapons of war, *Red Alert*'s window into a retro-future cold war makes for one of the most charming RTS games ever made. **RV**

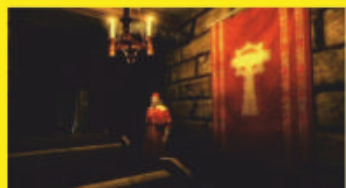
cncnet.org/red-alert



THE ELDER SCROLLS II: DAGGERFALL

The second *Elder Scrolls* game is huge and ambitious, with the provinces of High Rock and Hammerfell open to explore. A lot of what became standard for the series, like the option to join the Mages Guild, started here. **JM**

beth.games/35QHyl3



THE DARK MOD

A tribute to the *Thief* series, this standalone game lets you download a massive variety of user-made stealth levels, from tightly contained ones like *Thief's Den* to the more open variety of *Return to the City*, and plenty of spooky ones like *The Creeps*. **JM**

thedarkmod.com/main

I want to...
**RELIVE
THE
PAST**



THE OPERATIVE: NO ONE LIVES FOREVER

As it stands, no one can even agree which company owns the rights to this classic stealth FPS, so not only are the chances of a sequel or even a remaster close to nil, there's nowhere you can even buy the original game. Luckily, you can grab it and its equally worthy sequel for free at this

link. Its clever humour and charming 1960s setting hold up nicely, as does its unique spin on the genre – the key to success is creative use of the arsenal of goofy, Bond-esque gadgets at your disposal. That includes lipstick bombs, sleeping gas perfume, and a briefcase rocket launcher. **RV**

nolfrevival.tk

STARCRAFT

These days Blizzard sells a shiny remaster, but if the original's good enough for South Korea, it's good enough for us. There's a reason that even today it's an esports sensation – this iconic RTS remains a triumph of tight strategy and intense competition, with an incredible amount of depth for devotees to get lost in. **RV**

starcraft.com/en-gb



BENEATH A STEEL SKY

This early point-and-click adventure from the creator of *Broken Sword* features art by Watchmen's Dave Gibbons, a twisty sci-fi story, and a really goofy sense of humour. One of its neatest ideas is how you can stick your AI pal Joey's electronic brain into different mechanical robots to solve puzzles. And if you enjoy it, a sequel is currently in development (see p34). **AK**

gog.com/game/beneath_a_steel_sky

I want to...
**SOLVE A
PUZZLE**

TRANSMUTE!

Psst, please don't tell the Internet, but there are some bad things about retro games: limited lives, nasty difficulty spikes, the inability to save. None of these things is a problem for the decidedly retro, decidedly lovely *Transmute!*, which looks rather like a ZX Spectrum game, but is more

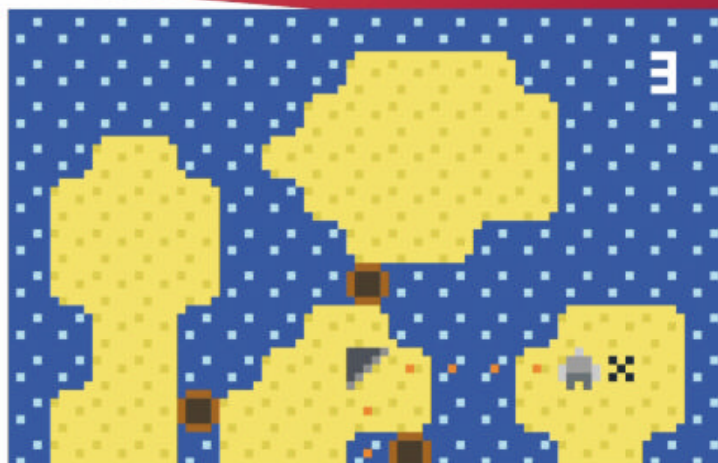
forgiving, more modern in its approach. It's a puzzle game, a wonderful puzzle game where you play as a wizard who can transform themselves into different objects. You might turn into a key to open a lock, or a boat to sail the open sea. And you'll do so to unlock a gorgeous, friendly fantasy world. **TS**

linker.itch.io/transmute

MIRROR ISLES

No list of puzzle games is really complete without a PuzzleScript game from Alan Hazelden, and *Mirror Isles* is one of the very best. It's a top-down, *Sokoban*-style puzzler where you have to hop between islands, by using magic mirrors to swap places with your reflection. Got it? Great. Now solve these increasingly difficult puzzles, by pushing mirrors and crates around each map. **TS**

bit.ly/2WqxFY9



CUBE ESCAPE

There's a strange atmosphere to developer Rusty Lake's series of locked room puzzle games. Getting out of each one will test your brain – but you'll be even more taxed trying to figure out what's going on in their bizarre universe. If you like them, we recommend moving on to the *Rusty Lake* games, though you'll have to pay for those. **RV**

cubeescape.com



CORRYPT

It's usual for a puzzle game to grow in complexity, in cleverness, as the game goes on. But few hand over the keys to their universe. What starts as a relatively simple block-pushing game ends as one where you'll reshape the world, by using magic to reprogram the state of the environment. **TS**

smestorp.itch.io/corrypt



COUNTERFEIT MONKEY

Words are great, aren't they? They hold power over the world – literally, even, in this text-based puzzle game. You come equipped with a letter-remover, which allows you to change the items around you, by deleting a single letter from their names. **TS**

bit.ly/2xV3UVT

I want to...
**COMPETE
WITH
FRIENDS**



EGGNOGG+

This is *Nidhogg*, but free, and with different moves, and a bit more tongue-in-cheek. It's a feature-rich, cheeky counterpart rather than a simple clone of the day-glo swordfighting game, and it was first released before its inspiration. Expect hyperactive duels in a series of arenas. **TS** bit.ly/2LkZQRZ



CUCKOO CURLING

A fun four-player game that combines the rules of curling with Connect Four. An easy game to pick up and play with friends, you can play *Cuckoo Curling* in local or online multiplayer. It's cute visuals and humour are perfect for anyone. Just watch out for the crocodile. **RW** chromacool.itch.io/cuckoo-curling

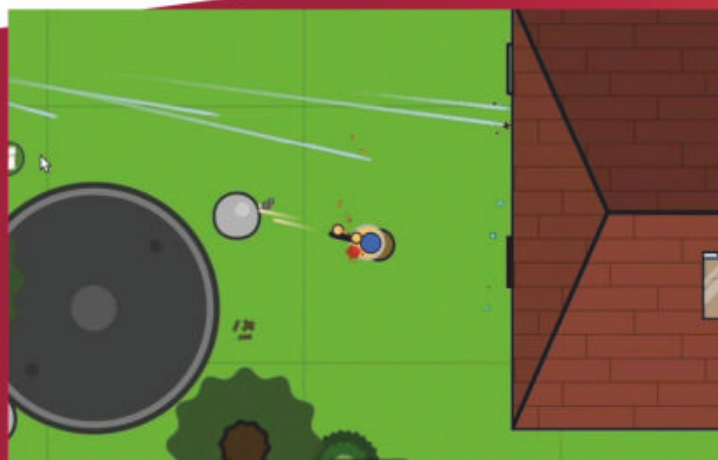
FIRST CUT

Flashy fighting games are all well and good, but there's something satisfying about the one-on-one sword duel, as evidenced in Square's classic *Bushido Blade*. *First Cut* is that but in 2D, essentially, offering feudal Japan-themed duels against some truly beautiful pixel art backdrops.

Moves are kept simple, but tactical: you can attack, block, or dash in a number of directions, while your opponent can behave identically. Mistakes will be punished severely, either by the AI or a nearby chum, as it only takes one landed hit to defeat your enemy. The tension that results from this is palpable. **TS** drasnus.itch.io/first-cut

SLITHER.IO

Despite colourful appearances, *Slither.io* is an utterly brutal game of survival. As a worm, you seek to eat and grow long. Collide with another worm's body, and you're dead – but get someone else to collide with yours, and you can feast on their remains. Simple, tense, and utterly absorbing. **RV** slither.io



SURVIV.IO

This battle royale may not look like much – your character is a simple circle – but it's still one of the best games in the genre. There's never a wait to play a match: you're instantly dropped in to start grabbing weapons and gear. You can play solo, duos, or squads, and the action is fast and incredibly tense as the final circle closes. **CL** surviv.io

broken unbreakable

Now tell me, where's the resistance?

I want to...
**SHIVER
WITH
FEAR**

WE ARE BROKEN

An interactive visual novel where you must talk your way out of being eaten by a vampire. You've been abducted and placed in a dark room, and your blood-sucking captor wants to know the location of the human resistance hideout. Through choosing dialogue options you must try to resist the

vampire's demands – or break in the attempt. Through the stories of three characters, *We Are Broken* conjures a dark and cruel world with cutting visuals and music that makes your skin crawl. Having a vampire sneer at your attempts to protect those you care about makes for a chilling story. **RW**
raulqueisso.itch.io/we-are-broken

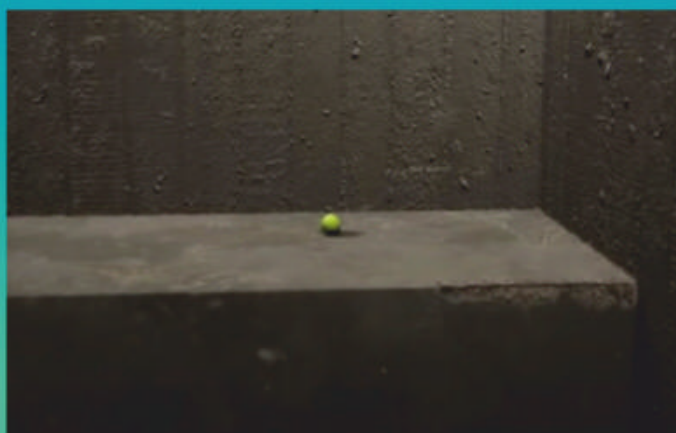


BLEAKSHORE

This chilling adventure uses the fuzzy, lo-fi aesthetic of PS1-era 3D graphics to create an impressively eerie atmosphere. Searching for a missing woman called Orla, you discover a trail of her belongings – each one illuminating something about the nature of your relationship with her. Meanwhile, a shadowy figure stalks you across the landscape... **RV**
boaheck.itch.io/bleakshore

SENTIENT

This one's a little Saw-esque – you're stuck in a room and forced to obey instructions given through an old speaker. Being trapped is horrible enough, but what cranks up the creepiness factor here is the dog-flap sized hole looming in the corner of the room, darkness shrouding whatever, or whoever, is inside. **RW**
formaworks.itch.io/sentient



NO PLAYERS ONLINE

In the spooky, original *No Players Online*, you log onto an old FPS, but where you're the only player in a futile game of Capture the Flag. The map feels convincing, and eerily empty as a result, while the gradual introduction of creepy elements is masterfully done. Brief but very effective. **TS**
bit.ly/2yOcaHK



FAITH

Standing out amid all the grainy, first-person horror games, *Faith* might look pretty harmless at first – but it's a horror game with genuine bite. It lures you into feeling secure – if a little jumpy – with its retro aesthetic, before it transcends its limitations in one shockingly scary moment. **TS**
airdorf.itch.io/faith



DAVID LYNCH TEACHES TYPING

What begins as a friendly typing lesson from film director David Lynch slowly descends into a surreal, disorientating nightmare. David teaches players how to type more efficiently and at one point you have to touch a gross twitching bug. Great work, kiddo! **RW**
bit.ly/2YTkoZF

THE TOP 50 FREE GAMES



THE HERBALIST

A wordless adventure about a traveller searching for a mysterious herb. You wander around its strange world trying to interpret symbols, in the hope of discovering the plant you need. Its detailed illustrations and ethereal music draw you completely into the mysterious setting. **RW**
bit.ly/2WnWRyh



HAUNTED CITIES

There are three volumes worth of *Haunted Cities* to savour. Despite the name, these aren't really horror games – they've just inherited much of the atmosphere of games such as *Silent Hill*. The boxy, PS1-style worlds hold fragmented stories to piece together, and overall a foggy, inviting sense of place. **TS**



EVERYTHING IS GOING TO BE OK

Vividly animated creatures deal with existential horror and pain – and are alarmingly sanguine about it – in this cathartic collection of minigames, videos, and quizzes. It's overwhelming, just as life can be overwhelming. But it's refreshing for a game to deal with that fact. **TS**
bit.ly/2yFSy8R

I want to...
**TRY
SOMETHING
DIFFERENT**



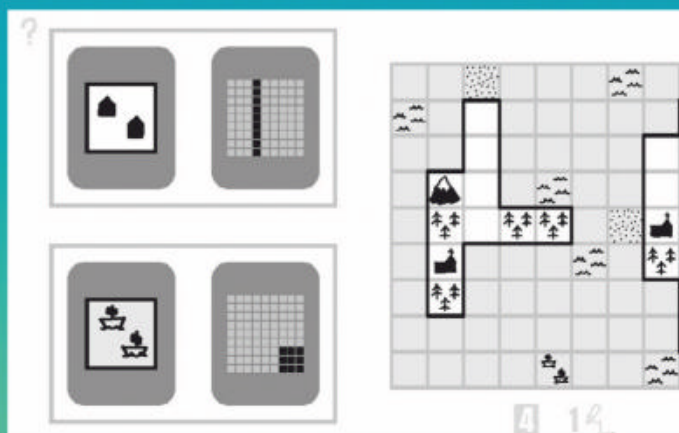
FOREST ARE FOR TREES

Walking through the forest is something that takes on new meaning in this mind-expanding exploration game, which is small and possibly infinite all at once. It's a walking sim, sort of, where you traipse around an eerie woodland. But something funny happens when you make contact

with a tree. Inside every tree there's another forest full of ghostly trees. You saunter through these arboreal portals in slick real-time. You could go back, but what if you kept going, into one of these trees? And so on, and so on, and *argh*. This is less a game, and more a beautiful creation myth. **TS**
bit.ly/3bo5kWJ

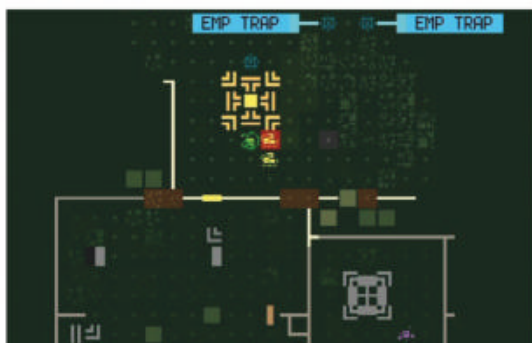
TINY ISLANDS

Roll & Write is a popular board game genre at the moment, and the brilliant *Tiny Islands* translates the concept to the digital realm. You're drawing maps of little islands in the sea here, by placing beaches, houses, even waves as random cards are dealt out to you. But placement is everything, as every icon has its own set of rules. **TS**
dr-d-king.itch.io/tiny-islands



OFF-PEAK

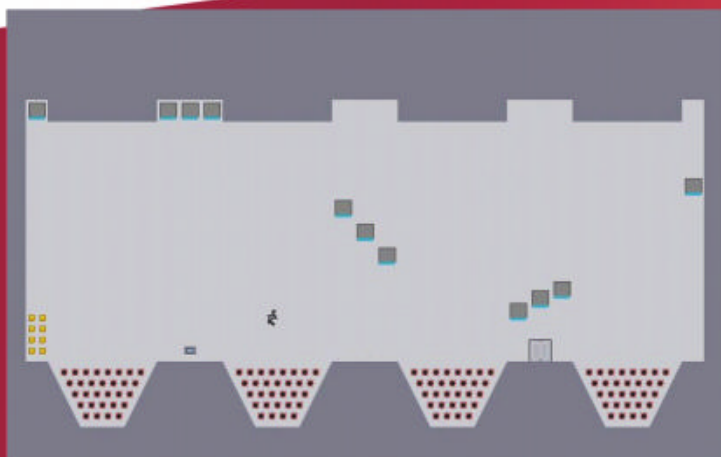
Stranding you at an otherworldly train station, *Off-Peak* encourages you to explore, talk to the locals, and luxuriate in its strange atmosphere. It's got an incredible sense of place, despite feeling like nowhere on Earth, and as you poke around its nooks and crannies, the true nature of its world is revealed piece by piece. **RV**
cosmoddd.itch.io/off-peak



POLYBOT-7

This self-contained spin-off from ambitious roguelike *Cogmind*, *Polybot-7* is a great dungeon crawler in its own right. You play as a little robot exploring a facility known as The Gauntlet, battling many other robots along the way. But, as you fight, parts are wantonly hurled about: bits from you, or your enemies, scattering around like unwanted trash. In *Polybot*, you are what you eat, as every part you walk over is automatically grafted onto your frame. Builds vary greatly, keeping things interesting. But it's possible, dramatically, to rebuild. Hit Purge and you'll *explode*, sending your components flying everywhere. **TS**

kyzrati.itch.io/polybot-7

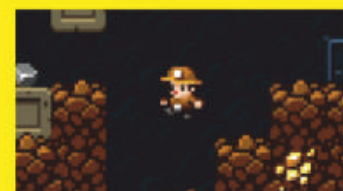


N 2.0

This ultra hardcore platformer boasts a dizzying amount of levels – and if you can get through even a fraction of them, you'll feel like you've accomplished something for the day. With simple controls and a minimalist aesthetic, the focus is entirely on quick, precise control. And lots and lots of practice. **RV**
bit.ly/3csYoci

1BOSS 1BATTLE 1BUTTON

The name says it all, really. This challenging rhythm game pits you against a scary Picasso-faced monster, and your only hopes of survival lie with a single button. Pressing it in time with certain beats lets you jump, crouch, and dodge out of the way of oncoming attacks. It's a very cleverly designed game that offers a truly challenging nemesis. **RW**
bryce-bucher.itch.io/1boss1battle1button



SPELUNKY

The shiny HD remake is well worth the asking price, but if you're strapped for cash, the original free version is still available and just as satisfying. Its roguelite journeys into the depths of a cursed ruin bring new meaning to the phrase "Just one more go..." **RV**
spelunkyworld.com/original.html



DWARF FORTRESS

A complex game of colony management that's still in development 18 years after its original inception – and with good reason. The incredible depth of its simulation doesn't just add depth and challenge, it allows for emergent stories to arise as you play, giving your dwarves a life of their own. **RV**
bit.ly/2zqvD17

I want to...
**CHILL
OUT**



HD
写メール



HAUNTED GARAGE

This oddity is part adventure game, part virtual orchestra, as you solve simple puzzles in exchange for fictional instruments. These you place inside an empty room, before you fiddle with their various dials and switches, causing pleasing noises to erupt from the machines. **TS**
bit.ly/3fFUC15



BERNBAND

You're an alien in an alien city, going for a nice walk. Flying cars BladeRunner past as you cross a bridge, someone's rapping in the corner of the car park, and every crowd hubbubs away. Despite the four-fingered hands and alien aviary, it feels like a real city. A real chill city. **JM**
gamejolt.com/games/bernband/34864

TORIPON

Topically, at the time of writing, *Toripon* is a game about being inside. You're stuck inside your flat, thankfully with company. Instead of friends – pah! – and family – pah! – your companions here are loads and loads of birds. Don't ask why. Don't look a gift parakeet in the mouth. Just sit

back and explore your apartment, examining every nook and every crevice for your feathered friends. You have your smartphone and a legally distinct version of Instagram, so why not snap every bird, 'collecting' them in your scrapbook? This is lovely and happy, exploring the nice side of social media. **TS**
theladyvictoria.itch.io/toripon

TERRA NIL

Building games see the environment as a resource, or an empty square waiting to be filled by some lovely concrete. *Terra Nil* begins at the ultimate end of civilisation – with the poisoned earth – letting you breathe life back into a post-apocalyptic wasteland. In this relaxing, therapeutic anti-builder, you construct devices to cleanse the earth, and to regrow green plants and trees. **TS**
vfqd.itch.io/terra-nil



LIEVE OMA

Is there anything more chill than going on a short walk with your grandma? *Lieve Oma* takes you on a relaxing jaunt through an autumnal wood on the hunt for mushrooms. As you scamper around, your granny follows slowly behind, teaching you about which mushrooms are okay to eat and teaching you her humble life lessons. **RW**
vltmn.itch.io/lieve-oma

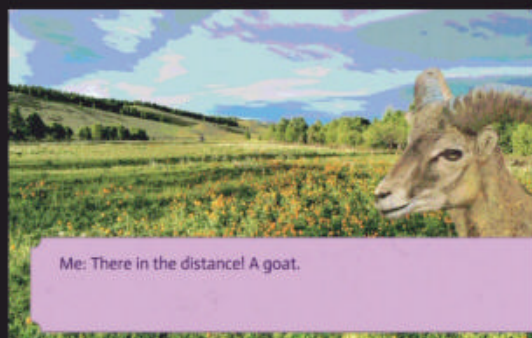


PET THE PUP AT THE PARTY

The story is simple: you've run out of small talk at a rambunctious house party and before anyone notices how awkward you are, you must find a pooch and pet it.

It's a frantic race trying to navigate the endless corridors and rooms of the house. You'll need to dodge random people who

want to talk to you, ignoring them and following the soft noises of the puppy to find it. And after all that, what better reward could there be than a cute new friend? It's fun, chaotic, and completely relatable to those of us that always wind up hanging out in the kitchen. **RW**
grey2scale.itch.io/pet-the-pup



HEAD OVER HOOVES: MY HEART BLEATS FOR YOU

An apocalyptic dating sim where you must make a goat fall in love with you and then sacrifice it to save the world from eternal damnation. Through a number of mini-games, you must impress your furry friend whilst keeping your true intentions a secret. It's a bittersweet tale of unrequited love. Cute, funny, and very weird. **RW**
bit.ly/3fEZROY

ALFONZO'S BOWLING CHALLENGE

This sort-of sports game swerves away from its premise quickly, building on its strange version of bowling until you're making breakfast and chopping hair with your bowling ball. **TS**
kittenm4ster.itch.io/abc



DR. LANGESKOV, THE TIGER, AND THE TERRIBLY CURSED EMERALD: A WHIRLWIND HEIST

This team-up of *The Stanley Parable* creator William Pugh and stand-up comedian Simon Amstell takes you on a hilarious journey behind the scenes of a game falling apart at the seams **RV**
bit.ly/3cBBXBq



THE BOOK OF BEASTS AND BUDDIES

An interactive monster manual filled with curious creatures. Each page throws you into a brief *Pokémon*-inspired encounter, and through interacting with them you can gather your findings for the bestiary. A tiny visual novel that's funny from cover to cover. **RW**
bit.ly/35R5MeV



COOLDOG TEACHES TYPING

There are plenty of educational game parodies, but only one features a chihuahua-looking thing as the teacher. He's eager to teach though. If you learned to type by having a teacher shout at you, you'll appreciate the gentler methods of Cooldog. **JM**
bit.ly/2LnO1KR

 noblechairs

BLACK EDITION



NEW INNOVATIVE HYBRID MATERIAL,
DESIGNED FOR EXTENDED COMFORT



EPIC



ICON



HERO

MORE BREATHABLE. MORE DURABLE. MORE COMFORT.

Introducing the next generation of noblechairs, upholstered in a unique, **breathable** hybrid material that has been designed and crafted in Germany. The material is not only **durable**, fire resistant and 100% animal friendly but softer than standard PU and PVC making noblechairs more **comfortable** than ever before.

PRICES STARTING FROM £374.95

THE BEST GAMING CHAIR BRAND
THREE YEARS RUNNING!



GET **10%** DISCOUNT*

USING CODE "**PCGAMER10**" WHEN SHOPPING AT [OVERCLOCKERS.CO.UK](https://www.overclockers.co.uk)

*10% discount applies to the Black Edition range only.



REVIEW

HOW WE REVIEW

We review each game on its own merits, and try to match it to a reviewer who's a passionate expert in the field. The main aim of reviews is to help you make buying decisions. To this end, we're selective about what we review, and try to focus on the notable, interesting, exciting or surprising.

DOWNLOADABLE CONTENT

DLC might be new missions for a game, or it might be a single new item. If we think you want to know about it, we'll review it.

EARLY ACCESS

Any released alpha, beta, or otherwise unfinished game that you can currently pay for. For these games, we won't assign a score, but we will tell you whether they're worth your time.

THEY'RE BACK

Whenever there's a bargain or re-release of a significant game, our expert will revisit it and tell you whether it holds up today. With jokes.

OUR SCORING SYSTEM EXPLAINED

00%-09% Broken or offensively bad; absolutely no value.

Example *Leisure Suit Larry: Magna Cum Laude*

10%-19% We might be able to find one nice thing to say about it, but still not worth anyone's time or money.

Example *Gettysburg: Armored Warfare*

20%-29% Completely falls short of its goals. Very few redeeming qualities.

Examples *Family Guy: Back to the Multiverse*

30%-39% An entirely clumsy or derivative effort. There's little reason to play this game over a similar, better one.

Examples *Trials of the Blood Dragon*

40%-49% Flawed and disappointing.

Examples *Aliens: Colonial Marines*

50%-59% Mediocre. Other games probably do it better, or its unique qualities aren't executed well.

Examples *Primordia, Homefront: The Revolution*

60%-69% There's something to like here, but it can only be recommended with major caveats.

Examples *No Man's Sky, Ghost Recon: Wildlands*

70%-79% A good game that's worth playing. We like it.

Examples *Prey, NieR: Automata*

80%-89% A great game with exceptional moments or features, and touches of brilliance. We love it.

Examples *Overwatch, Night in the Woods*

90%-94% A compelling recommendation for most PC gamers. Important to PC gaming, and likely ahead of its time.

Examples *Bayonetta, Dishonored 2*

95%-96% Far and away one of the best games we've ever played. We recommend it to the entire world.

Examples *Half-Life 2, Kerbal Space Program*

97%-100% Advances the human species. Boosts the immune systems of nearby children and small animals.



The Editor's Choice award is granted in addition to the score, at the discretion of the PC Gamer staff. It represents exceptional quality or innovation.

Find out more
www.bit.ly/pcgreviews



Switch gear

Here are words I never expected to write: there's a new *XCOM* out, but I've been playing the latest *Gears of War* game instead. There was a time when a statement like that would've required me to immediately hand in my PC Gamer badge and gun. But the times they are a-changing, and the *Gears* it is a-turn based – and remarkably well adapted for the shift in genre.

It's the sort of thing I'd love to see more of. Not strategy games starring angry little box-men specifically, but creative spin-offs that push series in new directions, and take risks that the mainline entries can't. But maybe I'm just saying that because the first game I ever reviewed for print was *Assassin's Creed Chronicles: China*.

(Yes, of course magazine editors get guns. But only for shooting their laptops in a fit of rage and despair three hours before deadline.)

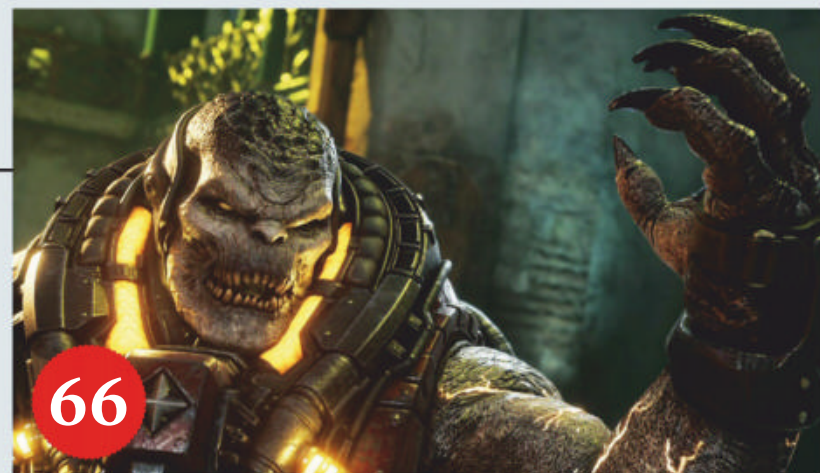
ROBIN VALENTINE

PRINT EDITOR

robin.valentine@futurenet.com

LET US KNOW
WHAT YOU THINK

Email us via letters@pcgamer.com with your reactions, or simply tweet us your thoughts @PCGamer



Contents

- 62** XCOM: Chimera Squad
- 66** **Gears Tactics**
- 68** Super Mega Baseball 3
- 70** **Cloudpunk**
- 72** SnowRunner
- 74** **Streets of Rage 4**
- 76** Before We Leave

FREE GAMES

- 78** First Cut
- 79** **Deepdive**
- 79** Remnants

THEY'RE BACK

- 80** Warhammer: The End Times – Vermintide
- 81** **theHunter: Call of the Wild**
- 81** The Haunted Island, a Frog Detective Game
- 81** **Aviary Attorney**
- 81** Goat Simulator

This month's alien-human hybrid reviewers...



TOM SENIOR
Specialist in
Alien crimes
Currently playing
XCOM: Chimera Squad
This month
Fined a Garblaxian for having a smoke in their UFO.



WES FENLON
Specialist in
Waist-high cover
Currently playing
Gears Tactics
This month
Commanded an entire squad of soldiers the exact shape and weight as fridges.



CHRIS LIVINGSTON
Specialist in
Batique
Currently playing
Super Mega Baseball 3
This month
Created a league of teams named after D&D monsters.



ANDY KELLY
Specialist in
Winching
Currently playing
Cloudpunk, SnowRunner
This month
Slogged through mud, rain and snow to bring you his reviews.



IAN EVENDEN
Specialist in
Hex-based architecture
Currently playing
Before We Leave
This month
Founded Space Wales, but it got attacked by space whales.



TOM SYKES
Specialist in
Studying the blade
Currently playing
First Cut
This month
Cut you down before you'd even finished reading this paragraph.



MATT ELLIOTT
Specialist in
Pest control
Currently playing
Warhammer: The End Times – Vermintide
This month
Found yet another excuse to write about Warhammer.

TEAM SPIRIT

Your enemies want City 31 to burn – it's up to you to put them down in **XCOM CHIMERA SQUAD**. *By Tom Senior*

You join me in medias res as the members of my squad hang precariously from rappel lines at the windows of a warehouse. All this is because a resistance group has been conducting some troubling experiments on the premises, and it's now time to shut them down.

Each breach point has pros and cons. I assign my human-alien hybrid Cherub to the most dangerous entrance. His massive shield should protect him from return fire. I assign my shotgun-wielding badass, Godmother, to a breach point that grants extra mobility, which should help her get close to the enemy. I assign my medic to the safest entrance, and my psychic alien warrior, Verge, to the last one. A big glowing button invites me to 'BREACH'. Time to take a deep breath and see what happens.

XCOM: Chimera Squad is still classic *XCOM*. You gather resources and unlock technology on the strategic map, and then dive into turn-based tactical battles to secure objectives and beat down the resistance menace. The world has changed, though. The Advent war is over. Humans, aliens, and hybrids have reached an uneasy peace. In City 31 they live side by side, but there are still restless groups who want to continue the grudges of the Advent war. As such the Chimera Squad is a special forces unit designed to cripple those resistance movements and keep the peace.

SQUAD GOALS

There's no world map here. The game focuses purely on City 31's nine districts. You have to manage levels of unrest in each district to keep the city's anarchy level low. If the city anarchy bar maxes out, it's game over. To save the city, you need to

investigate three resistance groups, one at a time. You take on missions, gather intel, research new gear, unmask each group's leader, and then take them out in climactic final missions. Don't be fooled by the smaller

scale – this is still a very lengthy, chunky tactics game.

Missions are much shorter than *XCOM* fans will be familiar with, however. Some are just a few rooms packed with enemies. Significant missions are chains of three room-clears, each of which has a 'breach' phase in which you position your squad at different entrance points. And that's why my squad members are all dangling off ropes outside of an old warehouse.

The breach phase is chaotic. One by one my four squaddies smash through their assigned window. Then time slows to a crawl. The camera shifts to an over-the-shoulder

Humans, aliens, and hybrids have reached an uneasy peace

NEED TO KNOW

WHAT IS IT?
A city-scale turn-based tactics game about squashing resistance outfits

EXPECT TO PAY
£17

DEVELOPER
Firaxis

PUBLISHER
2K

REVIEWED ON
Intel i5-4670K CPU, GTX 970, 8GB RAM

MULTIPLAYER
No

LINK
xcom.com

perspective as my primary breacher, Cherub, takes aim. The camera has a blurry fish-eye filter that makes it impossible to gauge the layout of the room, but I can switch focus between enemies and choose what I want to pick off. I tab between enemies, noting their classes. There's a turret – that will deal reliable damage to my squad over time, but it can wait. There are a couple of androids, easily killed but they can self-destruct and do significant area-of-effect damage.

Then I see a purifier. The purifier has to die. It's just a man with a flamethrower, but area-of-effect attacks are massive when you're fighting at room scale. The flames can linger and make traversal a bit of a nightmare. Also the initial spray can set off explosive barrels, creating a cascade of events that could end up with my entire squad aflame and covered in acid.

Instead of shooting, I order Cherub to hunker down. You don't create your own characters in *Chimera Squad*. Each of the 11 available heroes have unique abilities. Each functions as a separate class. You'll recognise some archetypes from *XCOM 2*: the gunslinger, the medic with a healing drone, the shotgun maniac. Then there are others like the muton Axiom, who hits people and sometimes goes berserk in the middle of a mission. Your agents can't die either. If they go down in a mission, as long as you stabilise them, they turn up back at base safe and sound. There's a chance they can gain a wound, which sabotages their stats until you rest them for a few missions. The system is far less punishing than *XCOM 2*. It's easier to experiment when the stakes aren't so high. You can risk slotting in new under-levelled agents to play with their abilities.

However this approach sacrifices one of *XCOM*'s greatest features: the ability to name your soldiers and bond with them over the course of a campaign. There are advantages though. Each character is voiced. The

SOLDIER ON *Every agent has unique talents*



CHERUB
A tank who can take fire on behalf of other teammates.



VERGE
Psychic who draws enemies into a deadly psionic web.

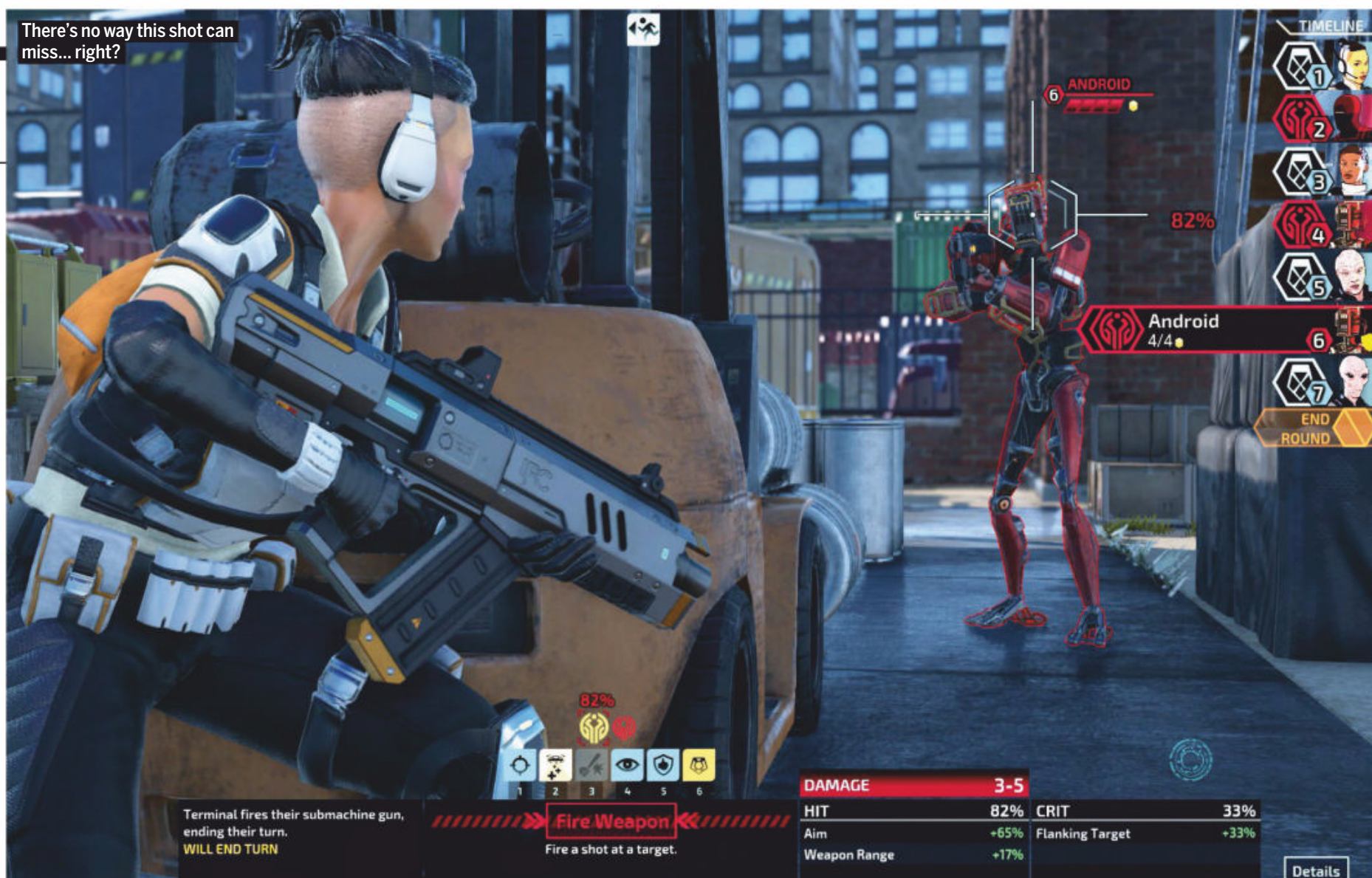


TERMINAL
Masterful medic with a helpful healing drone.

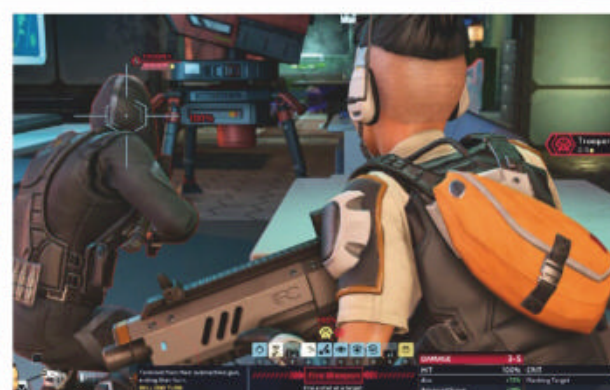


BLUEBLOOD
Low damage, but shoots with deadly accuracy.

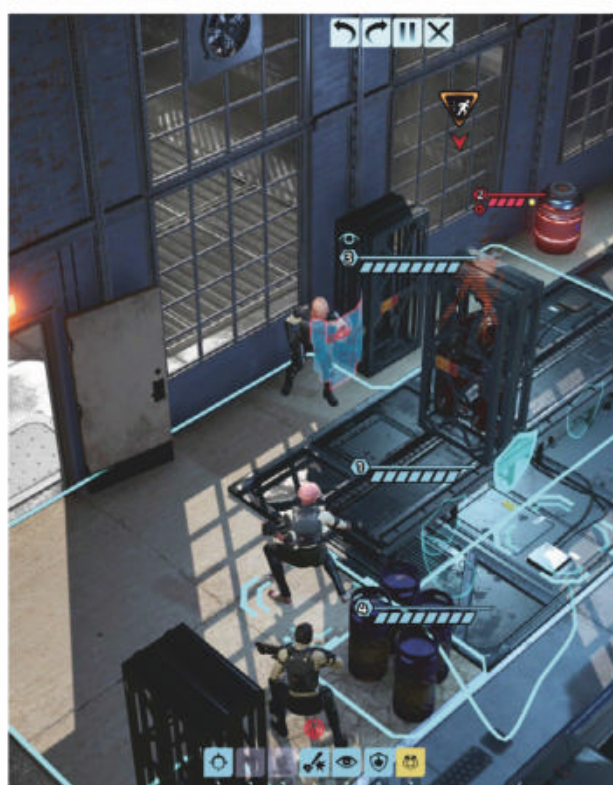
There's no way this shot can miss... right?



Fire can start deadly chain reactions.



Cherub's shield makes him one tough customer.



Endearing banter gives your oddball team loads of personality.



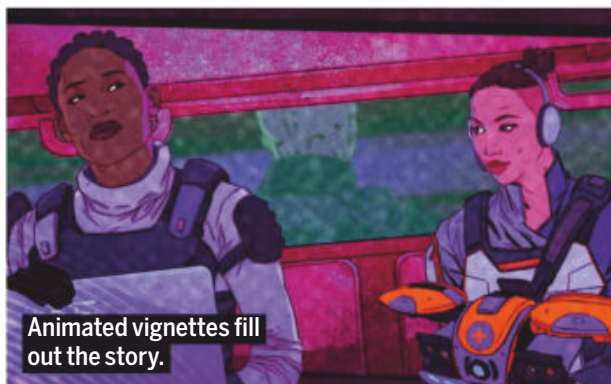
BREACH

Encounter 1 of 1

Verge's veiny brainbox allows him to use deadly psychic powers.



Animated vignettes fill out the story.



Missions are short and punchy.



Rebel groups threaten to destroy the peace.



BREACH

Everyone huddle up for a team photo!



» story is told through cartoon vignettes that efficiently lay out the stakes and do a good job of describing the new world order with humour and character – one off the cuff description explains that City 31's inhabitants fry and eat the terrifying Chryssalids as though they're lobsters. There's tension too. Some of the aliens and hybrids on your team may have fought on the enemy side in the Advent war against the humans. The events of *XCOM 2* loom over City 31 throughout.

Cherub's hunker down ability is amazing. He draws all enemy fire and takes it harmlessly on his shield, sparing his teammates from the threat of return fire. Next up is my most powerful guy, the psionic Verge. Instead of shooting he uses his mind to lift the purifier out of cover. Suspended in midair, the purifier is an easy target for my other two teammates, who execute him before the battle even starts.

LIFE'S A BREACH

I found the breach phase irritating at first. I'm used to having a lot more battlefield awareness in *XCOM*, but *Chimera Squad* deliberately sends you in blind. It's a very different dynamic to *XCOM 2*. That game is about advancing efficiently and positioning properly across large maps. You manage odds and control the situation as much as possible. *Chimera Squad* throws a scenario at you and shouts "catch!"

The breach system is much more nuanced than it appears, but the game does a poor job of teaching you the intricacies. For example, the second agent assigned to a breach point can use breach gear like flashbangs, but not the first. You can also change the order in which your agents breach – if you want a particular hero to go first in the battle, you can engineer that in the breach phase. Instead of moving your whole team in a turn, agent and enemy actions are interleaved in a turn tracker at the top right of the screen. You can manipulate the turn order using agent abilities to gang up on an enemy you really want dead.

The breach phase is about eliminating important enemies. Once that's over your squad automatically moves to cover and a traditional *XCOM* fight ensues. They take cover intelligently, most of the time, but it's another point where the game

UNREST FOR THE WICKED *How to keep City 31 calm in times of crisis*

1 The chevrons next to each district represent unrest. Districts are colour coded too. Angler's Point is just about to boil over.

2 You can assign different types of field teams to each district. Security teams reduce unrest every Friday, for some reason.



3 Operations are easy resource grabs. You don't even need to fight to pick up this extra elerium.

4 Purple missions will further the story and help you to close in on each resistance group.

takes tactical choice away from you. Once I learned to shrug and go with the flow of the game I started to like it a lot more, but you're always going to be a victim of circumstance in *Chimera Squad*.

Things picked up when my heroes started to level up and their unique talents came to the fore. There are some delicious combos to unlock. My medic has an incredible ability to give a teammate a free action. This is fantastic paired with Verge, who can draw enemies into a psychic web, one by one, and then zap them all with his brain for guaranteed damage. In *XCOM*'s world of percentage chances, that sort of en masse two-to-three points of chip damage is gold. Beautifully, he can brain-zap everyone, and then the medic can throw him a free action so he can brain-zap everyone again. These are *Chimera Squad*'s best moments, when you engineer clever team combos and wipe out a whole room in just a few turns.

I like the heroes a lot, but there's not much experimentation space here, especially when fights are just a few rooms long. I wish the heroes had some of those powerful unique skills unlocked already so I could switch them around and play with combos right away. The game removes *XCOM 2*'s health pool race at least, which demanded that you level up armour and weapons to keep up with enemies' expanding health bars. That's great in *XCOM 2*, but keeping health pools and damage output stable leaves you free to swap in inexperienced heroes without much loss of power.

The strategy layer of the game is surprisingly involved too. There's no base building, but you still need to research tech, buy gadgets and gather resources: elerium, intel, and dollars. I miss the visual armour and weapon upgrades of traditional *XCOM*.

Without them the strategy layer feels like fussy, abstract number crunching.

You can (and really should) deploy field teams to the city's districts. These function a bit like *XCOM*'s satellites. They keep unrest down and feed you resources so you can buy rad flashbangs for your squad. Separately, you can deploy squad members to work on spec ops, which

sounds exciting, but it's just another way to Hoover up resources. Without base building and *XCOM 2*'s lavish presentation, it all feels too much like admin.

It's still a really involved tactics game, though. It's a curious

XCOM experiment with a neat setting that I'd like to explore more. It's fantastic value, too. This isn't budget *XCOM* exactly – it's an attempt to rework the series' rules into a snappier experience. There's a version of *Chimera Squad* I can imagine that's even more, but I still felt the familiar feelings of elation when a combo came off, and annoyance when that 90 percent shot missed. If anything, it's convinced me to start yet another *XCOM 2* campaign, and that's no bad thing. ■

You can manipulate the turn order to gang up on an enemy



PC GAMER VERDICT

XCOM Chimera Squad is a fine superhero SWAT team tactics game smothered by a little too much admin.

72

CHAINSAW CHESS

Fantastic combat makes **GEARS TACTICS** a strategy game worthy of the PC. *By Wes Fenlon*

Gears Tactics and I share the belief that a sniper rifle should practically be an extension of the hand of god, so mighty it feels almost unfair. Late in my campaign I could fire off seven rounds in a single turn, chaining together shots that gave me free actions for every kill. This is the power fantasy version of a tactics game, and pitch-perfect Gears of War, down to the cranial pop of a Longshot's bullet landing a critical headshot.

Tactics has a linear campaign, told with very pretty Unreal Engine cutscenes. It's easily the best-looking tactics game I've played, and it's hard to oversell how precisely this game translates Gears into an overhead turn-based perspective.

Gears Tactics is an aggressive strategy game that throws piles of enemies at you, because it knows you've got frag grenades that can turn a pack of scurrying wretches into chicken nuggets, or a chainsaw gun that has a 100-percent chance to slice even a full-health Locust in half.

XCOG

While it first looks an awful lot like XCOM, Gears Tactics plays differently. Every turn in XCOM is about the tension of how few moves you can make. Gears is more freeform, giving each of the four soldiers you take into a mission three actions per turn. And every time one performs an execution move on a near-death enemy, the rest of the

squad gets an extra action point for the turn, the design equivalent of a platoon shouting "Hoo-ah!"

You're not trying to make the best of your meagre options each turn. You're trying to extend your turn for

as long as possible, every kill offering up the opportunity to earn more actions, until everything lies dead at your feet. I love how every turn pushes me to be creative with how I combine my squad's abilities.

The support class can gift an action point to a squadmate, and you can pair that with another ability that earns the support soldier an action back each time that squadmate gets a kill. It's like placing a bet on them and then trying to follow up.

Each of the five classes have skills that combine in clever ways. The heavy, who carries a chain gun, can earn an extra action point for going into overwatch, making it the perfect defensive class. The vanguard can knock enemies out of cover, enabling you to keep pushing forward.

Each of the five classes have skills that combine in clever ways

NEED TO KNOW

- WHAT IS IT?** Turn-based strategy, with chainsaw guns
- EXPECT TO PAY** £50
- DEVELOPER** The Coalition / Spash Damage
- PUBLISHER** Xbox Game Studios
- REVIEWED ON** GTX 1080, Intel i7-6700K, 16GB RAM
- MULTIPLAYER** None
- LINK** gearstactics.com

Where Gears Tactics diverges most from XCOM is its linear campaign, with no 'meta' strategy layer to manage. This is not a sandbox experience, which largely works for Gears Tactics thanks to the depth of its combat, but it unfortunately means repeat playthroughs will present a mostly identical challenge. And I found that without some of that meta strategy to change up how I was spending my time, the campaign started to drag by the time I was nearing the end.

There are boss battles (good!) that use mostly the same mechanics and change little throughout long fights (bad!). Side missions pad out the campaign, but they're repetitive and end up feeling like roadblocks to progress. Already I'm hoping for a Gears Tactics 2, because the combat, skill system, and top-notch presentation are all so promising.

The skill trees for each class branch into four specialities, and you can freely choose how to mix those skills. Most of my characters ended up maxing out only one skill path, and as I recruited new soldiers that were specced differently I kept finding fun combos I hadn't used yet. Weapon customisation ties nicely into skills, buffing stats and even adding special effects like knockback. 'Legendary' rarity parts are typically rewards for difficult optional objectives and they're satisfying to earn, because you know they'll come with some big stat perks.

I got tired of the chase for more loot late in the game, but slap Gears Tactics' combat into a sequel with a couple more strategic systems that balance out the variety and pacing, and I'd honestly rather play it over XCOM, a recommendation I never expected I'd make. ■

PC GAMER

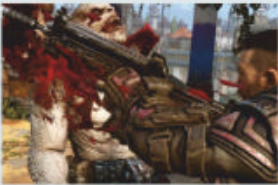
VERDICT

Clever combat abilities and brutal executions translate Gears of War into a deep, fast-paced strategy game.

83

GEARS OF GORE

Gears Tactics zooms in to give you a close look at its grisly executions



CHAINSAWED
The Lancer's chainsaw is as powerful as ever, reducing Locust to jam.



DECAPITATED
Vanguards can use a bayonet like a sword. Off with his head!



IMPALED
A bayonet charge covers ground fast and lifts 'em right off the ground.



FRAGGED
Grenades blast enemies into a shower of the tiniest chunks. Lovely.

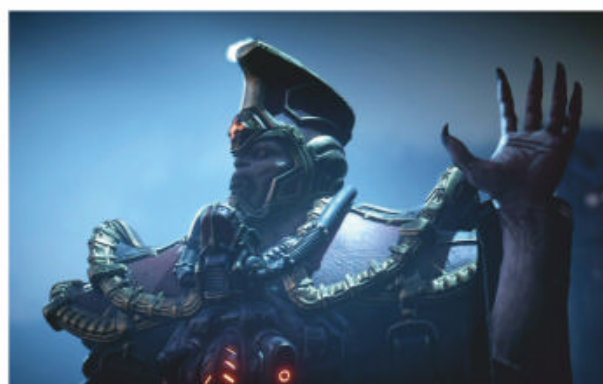
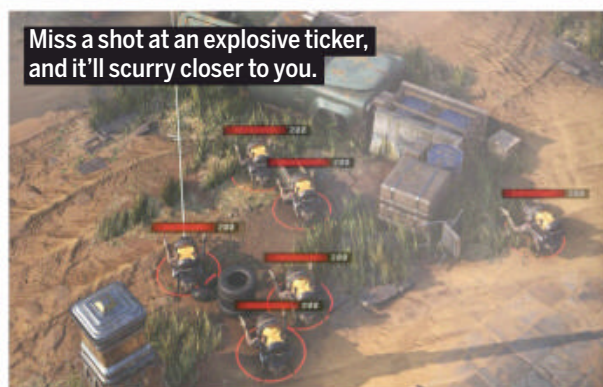
The Locust: pretty much orcs with guns.



Boss fights force you to dodge aerial bombardments.



Miss a shot at an explosive ticker, and it'll scurry closer to you.



Our hero Gabe Diaz has an important place in Gears lore.



Say it with me now: Boom!



BASES RELOADED

Franchise Mode gives **SUPER MEGA BASEBALL 3** a deep, multi-season bench. *By Chris Livingston*

Third baseman Bobby Bashe steps into the box, tapping home plate with the tip of his bat hard enough to make the camera shake. All season long, Bashe has been my best base-stealer (despite his chunky body) and one of the league's leading home run hitters, capable of turning a close game into a rout with one big swing. I don't know what I'd do without him on my roster, but I'm about to find out – this is the last game of his career.

The managerial aspects of the *Super Mega Baseball* series have always been a bit weak, but the outstanding new franchise mode in *Super Mega Baseball 3* lets you tinker with your roster over multiple seasons, wrestle with a salary cap, and presents you with far more situational decisions during individual games, as well as players like Bashe, who I'll get to. Combined with several new on-field systems, *Super Mega Baseball 3* has added lots of depth and careful decision-making both on and off the field, while still preserving the arcade fun of the earlier games.

You can't trade directly with other teams in franchise mode, but you can sign free agents, kick players off your team, and best of all, develop your players' skills and attributes over time. During the offseason, young players join the league and older veterans leave it – which is how I lose Bobby Bashe. At the end of my

season he just straight-up retires at age 38, done with baseball for good. While that's a major bummer for me, at least now I get the fun of hunting through free-agency for his replacement with the \$7.5 million his retirement frees up.

There's also a small chance a player will develop a situational trait

After each game in franchise mode you're shown a handful of players eligible for development, and you can spend cash to tinker with their skills: add a few points of hitting power, for

example, or give a pitcher a bit more accuracy or velocity, sometimes at the cost of losing a few points from another skill. There's also a small chance a player will develop a situational trait during development. Traits can be good, like increasing the chance of contact when batting against left-handed pitchers, or bad, like a pitcher losing a bit of accuracy when they fall behind in the count. These attributes are small tweaks to a player's abilities in specific situations,

NEED TO KNOW

WHAT IS IT?
A cartoony yet deep on-field baseball sim

EXPECT TO PAY
£35

DEVELOPER
Metalhead Software Inc

PUBLISHER
Metalhead Software Inc

REVIEWED ON
i7-9700K @3.60GHz, 16 GB, Nvidia GeForce RTX 2080 8GB

MULTIPLAYER
Yes

LINK
supermega
baseball.com

but they make a big impact on the managerial side of things.

HOME RUN

Player development also goes a long way toward giving your team some continuity and personality. I signed a 20-year-old starting pitcher, Ned Cummings, to my custom team, The Owlbears. He was a real rookie, tagged with a C- rating, little velocity to his pitches, and not much accuracy. But over the season I've spent some cash to improve his arm a few times. He's now a C+ player, which still isn't great – but I plan to keep developing Ned and someday maybe he'll be a star. The dream of taking a ragtag collection of marginally talented players and developing them into contenders, just like in the movies, is real in *SMB3*.

The on-field baseball sim has developed and deepened as well. It's even more lively than in previous games thanks to the addition of wild pitches, passed balls, and dropped third strikes. In an average game there are more surprises and sudden scrambles for the ball, and a more robust base-stealing and pickoff system keeps me eyeing the baserunners instead of only focusing on the batter while I'm on the mound. And once again everything in *SMB3* is customisable, right down to uniforms and the team logo.

Super Mega Baseball 3 is the series at its best. The on-field baseball sim is livelier than ever, and player development, attributes, and free agency gives you some real managerial decisions to make both on the field, over the course of a season or seasons, and even during the offseason. *SMB3* may superficially look about the same as *SMB2*, but it's a whole new ballgame. ■

PC GAMER

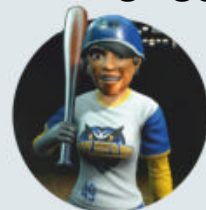
VERDICT

The excellent franchise mode adds loads of depth, decision making, and progression, and on-field play is a blast.

90

MEET THE OWLBears

This ragtag group of misfits might win the championship



SLOANE HANSON
More hits than anyone in the league – but she's ridiculously slow.



FRED FREEMAN
He's got a good eye, but terrible taste in eyewear. And moustaches.



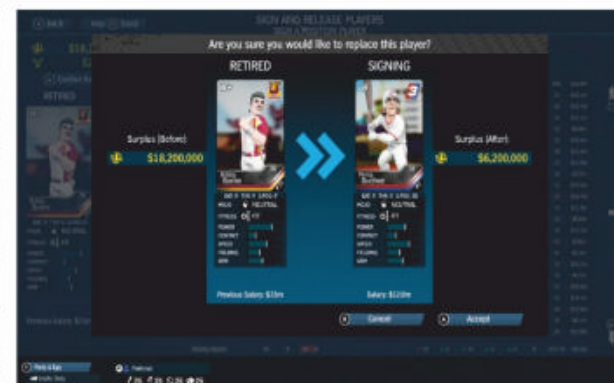
PLOVER ROACH
Hits a lot of homers, but I mainly keep him because his name is 'Plover Roach'.



HARLAN POLEBEAN
Doesn't hit any homers, but again, that's an awesome name.



DING GLEAMING
OK, maybe if I stop signing players for their funny names, the Owlbears will win more often.



SILVER LINING

CLOUDPUNK is a story-driven delivery game set in a stunning voxel metropolis. *By Andy Kelly*

Whether it's Blade Runner's rain-soaked Los Angeles or the planet Coruscant in Star Wars, there's something evocative about the image of a futuristic city criss-crossed with flying cars. And in the gorgeous, voxel-based *Cloudpunk* you get to be a part of one of those teeming skyways, driving a beaten-up hover car and delivering packages in a dystopian, multi-tiered city called Nivalus.

This vivid, intricate metropolis is genuinely stunning to look at. A bustling sprawl of neon signs, roaming spotlights, colossal billboards, and hover cars scurrying back and forth between monolithic skyscrapers. It looks great up close too. Lower your car to street level and you'll see pedestrians milling around noodle stands and seedy nightclubs. In the air: advertising blimps, trains streaking along suspended rails, and the glow of thousands of apartment windows. The sheer density of the place is remarkable. It ticks off every cyberpunk aesthetic cliché, but it does it with style.

And I have to mention the extraordinary sound design. The buzz of the traffic, the rattling rain, the voices echoing from billboards, and the synths of the Vangelis-inspired soundtrack combine to create a thrilling sonic landscape. It sounds every bit as good as it looks, and the result is a game that is absolutely drenched in atmosphere.

HEAD IN THE CLOUDS

OK, the city is incredible. We've established that. But what do you actually *do* there? You play as Rania, a newcomer to Nivalus who takes a job with a legally dubious courier company called Cloudpunk. Your job is simple: pick up packages, deliver them, and don't ask any questions.

This is a game almost entirely about exploration and conversation. As you

make your deliveries you'll meet a large cast of characters along the way, including shady nightclub owners, hackers, hover car racers, CEOs, cops, and self-aware androids.

There's a story to follow too. As Rania makes her deliveries she learns more about Cloudpunk, how the city is run, and the tensions bubbling beneath the surface.

But what really holds *Cloudpunk* together is the driving. Or is it flying? Your little hover car is a delight to control, with a nice feeling of speed, weight, and momentum. Gliding

This is a game almost entirely about exploration and conversation

NEED TO KNOW

WHAT IS IT?

Drive a hover car and deliver packages in a cyberpunk city

EXPECT TO PAY

£17

DEVELOPER

Ion Lands

PUBLISHER

Merge Games

REVIEWED ON

TX 2080 Super, Intel i7-9700K, 16GB RAM

MULTIPLAYER

No

LINK

ionlands.com

across those cityscapes, weaving through traffic and firing your repulsors to gain altitude feels sensational. And it only gets better as you spend your wages on upgrades, including a nifty booster that gives you a short, satisfying surge of speed.

There are some light simulation elements too, such as stopping at garages to refuel, or forking out for repairs if you've traded paint with a few too many hover buses. But for the most part, *Cloudpunk* is a pretty easygoing experience. It's a narrative game first and foremost, more concerned with telling you a story than challenging you.

Occasionally you're forced to park your car and explore parts of the city on foot. Fixed camera angles and slightly floaty character movement mean these sections aren't as compelling as when you're in the air. But there are some nice, light navigation puzzles here, using elevators and walkways to find clients hiding in the dark corners of the crowded city.

There are a few fun extras, like an apartment you can decorate, optional missions that reveal more about the city, and even the opportunity to trade your hover car in for a faster model. But the core of the game is navigating the city and meeting the strange people who live there.

There's a noticeable disconnect between some of *Cloudpunk*'s working parts, as if the city and the hover cars came first, and the rest was grafted on later. But despite this, and some poor acting in places, I love it. Even if the story doesn't grab you, it's worth playing just to fly around that wonderful city. And it's nice playing a cyberpunk game where you're a regular working stiff, not a corporation-toppling superhacker. ■

GARAGE TALK *Essential upgrades for your hover car*



SPEED BOOSTER

Gives you a sudden blast of speed, but at the expense of control. Don't attempt any sharp turns while using it.



VERTICAL REPULSOR

Going up and down is pretty slow. But fit this and you can quickly lift your car into the air.



PLASTEEL BUMPERS

You're gonna bump into a lot of cars as you fly around Nivalus. But fit this and you won't take nearly as much damage.



RETRO ANTENNA

Some upgrades are purely cosmetic. Nobody uses antennas in this future, but it lends your car some retro cool.

PC GAMER

VERDICT

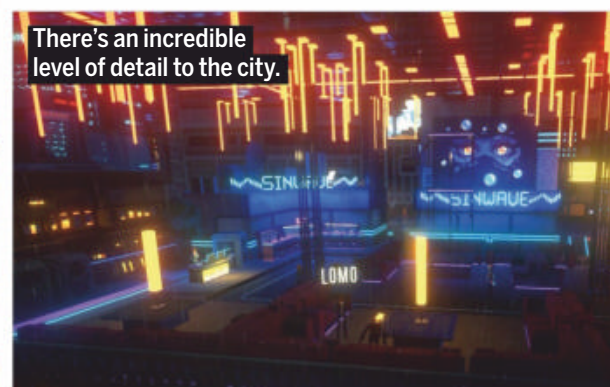
Cloudpunk's story certainly has some issues, but this vast, beautiful city is a joy to take flight in.

80

Watch out for space messiahs falling through the roof of your car.



It's a little style over substance – but it's a hell of a style.



Not all is as it seems in Nivalus.



For a game about dystopia, it's surprisingly chill.

ICE COLD

Pick a fight with nature in punishing off-road driving sim **SNOWRUNNER**. By Andy Kelly

There are moments in *SnowRunner* when I'm stuck halfway up a mountain, wheels churning pointlessly in the slop, that I wonder if all the struggle is worth it. The more I fight it, the worse it seems to get, and I can't even winch myself out because the nearest tree or rock is just out of reach.

But, somehow, I always (well, usually) manage to heave my off-roader out of the sludge. Whether through dumb luck, determination, or just sheer pig-headedness, I jostle myself free, and the feeling of victory is immense. At least until I get stuck again down the road, which is inevitable in these wild, unpredictable stretches of mud, snow, and pain.

This is the *SnowRunner* experience. You'll feel hopeless, annoyed, and always on the verge of rage quitting, cursing as the broken-down truck you're towing gets wedged against a rock, or your ill-equipped Chevy pick-up slides off an icy path and digs itself into a mud-filled trench.

But the euphoria, and the relief, of conquering these challenges is what keeps me playing through all of this simulated hardship. *SnowRunner* is a brutal, uncompromising off-road driving sim that really wants you to fail – which only makes denying it the satisfaction even sweeter.

A short tutorial sequence eases you into the game's systems, like switching to a low gear, or firing up your fuel-guzzling all-wheel drive, to avoid getting stuck in the mud. But after this, it's a full-on sandbox. The maps are huge and loaded with missions you can tackle in any order, whether you're delivering wood and steel to help finish a bridge, locating a missing science team in a snowy wilderness, or dragging a lost oil tanker out of a bog.

Completing missions earns you currency that can be spent on better vehicles, allowing you to tackle rougher ground, travel deeper into the wilds, and take on more lucrative jobs. Play for long enough and you'll

have an entire fleet of trucks, ready to tackle anything nature throws at you.

There are three locations to slog through, each with their own unique terrain, weather and atmosphere. You start in Michigan, navigating autumnal forests, winding mountain paths and rocky plateaus. The region

has recently been hit by heavy flooding and you're part of the rescue effort, repairing vital infrastructure and delivering supplies to cut-off citizens.

Then there's Alaska, which puts the snow in *SnowRunner*, hurling

all manner of wintry chaos at you, including deep, powdery drifts and iced-over lakes. This is punishing, nerve-shredding terrain, which the game helpfully warns you about when you first arrive. Losing control on ice is particularly terrifying, because at least in the mud there's something to grip onto.

And, finally, there's Taymyr, a rugged peninsula in the far north of

NEED TO KNOW

WHAT IS IT?
A game about driving big trucks down small roads

EXPECT TO PAY
£35

DEVELOPER
Saber Interactive
PUBLISHER
Focus Home Interactive

REVIEWED ON
RTX 2080 Super, Intel i7-9700K, 16GB RAM

MULTIPLAYER
Up to 4 player co-op

LINK
snowrunner-the-game.com

Russia. Here you'll find thick forests, swampy marshes, sloppy dirt roads, and a bleak overcast sky looming over it all. Wherever you are in the world, *SnowRunner* is beautiful to look at.

MUD SLINGING

There are 11 maps in the game, littered with hundreds of natural and man-made obstacles, such as collapsed bridges, rockfalls, and fallen electricity pylons. And everything you encounter, even if it's just a deep puddle, is a puzzle to be solved. Something as simple as dragging a trailer up a muddy incline can be a 25-minute ordeal, often requiring multiple vehicles.

Switching vehicles is one of *SnowRunner*'s best features. If your truck gets stuck, you can switch to another vehicle in your fleet, drive over, and use a winch to yank it free. The game also supports online co-op, so a friend can come to the rescue as well. Just don't be surprised if the rescue vehicle ends up stuck in the same patch of mud.

If you're really beyond help you can respawn back at your garage, fully repaired and refuelled. But when you've just spent 45 minutes clawing your way up a mountain, this is the last thing you want to do. All that progress will be lost, and you'll have to start over. *SnowRunner* has absolutely no sympathy for you, which can be a little dispiriting.

That's what you sign up for when you play *SnowRunner*. You're going to be frustrated and demoralised as you wrestle with its many gruelling off-road trials. But when you do finally reach the other side of that swollen river, flooded trail, or snowy forest, it really does feel incredible. You'll just have to decide if chasing these victories is worth the stress. ■

PC GAMER VERDICT

This deep off-road sim delights in giving you a hard time, but every victory is all the sweeter for it.

83

You'll feel
hopeless,
annoyed, and
on the verge of
rage quitting

MUD FOR IT

What to expect from the three regions



MICHIGAN
Location: United States
Terrain: Gravel, dirt, mud
Obstacles: Fallen trees, flooded roads, rockfalls
Challenge level: 3/5



ALASKA
Location: United States
Terrain: Snow, ice, mud
Obstacles: Frozen lakes, snow drifts, collapsed bridges
Challenge level: 5/5



TAYMYR
Location: Russia
Terrain: Mud, mud, more mud
Obstacles: Swollen rivers, marshes, quarries
Challenge level: 4/5

The landscapes you drive across are truly gorgeous.



Ice is one of your greatest foes.



These supplies aren't going to transport themselves.



More robust vehicles allow you to tackle more dangerous regions.

Phew, we got through the whole review without comparing it to Dark Souls.



KNUCKLE UP

With luscious hand-drawn animations and creative stages, **STREETS OF RAGE 4** packs a powerful punch. *By Wes Fenlon*

Streets of Rage is so deeply '90s, its main characters are named Axel and Blaze, the kinds of names that made 12-year-olds whisper “whoa, cool”. Streets of Rage 4 is the game I imagine those kids creating if they grew up to be talented videogame developers, and wanted to remake the thing they played as kids. Streets of Rage 4 does not try to reinvent the basics – you walk to the right, you punch guys; sometimes, for a change of pace, you throw them.

Homage is clearly the point here, and it is a beautiful homage: this review could perhaps be the words “Don’t worry, it plays fine” followed by 100 screenshots of Streets of Rage 4’s characters and stages, and you’d get the point.

The best reason to play this game is to see the fluid attack animations for each character, to be distracted by one gorgeous backdrop after another, to scrutinise each stage for easter eggs and cute little details. The second best reason is to revel in the music, which will be on my shortlist for soundtrack of the year. It retains the series’ synthy vibe while incorporating bits of funk and rock and even dubstep.

I did enjoy the punching and the kicking quite a bit, too, thanks to that great animation and a more complicated set of attacks than the old games. These moves do a great job of expanding on the actions you can take at any given moment, and each character plays quite differently.

Even if it’s not trying to innovate, Streets of Rage 4 is delightfully playful with its stage designs and some little flourishes here and there. In Chinatown, you fight your way through a huge stream of enemies

using polearms to keep your distance. In another level, you fight your way down a hallway reminiscent of Oldboy; there’s a sauna with a wet floor that you and enemies both go slipping and sliding across. In a genre this

straightforward, even something as simple as a slippery floor can make a stage stand out.

RAGE APPROPRIATE

There are a bunch of difficulty levels and assist options to help you out at the expense of your score. The scoring system often left me frustrated, because it’s how you unlock characters and also how you earn crucial extra lives during stages, but even after several hours I wasn’t completely clear on how it worked. There’s a combo meter for getting

Would you please just let me grab the damn roast chicken!

NEED TO KNOW

WHAT IS IT?
Punching guys to sick synth beats

EXPECT TO PAY
£22.50

DEVELOPER
Dotemu, Lizardcube, Guard Crush

PUBLISHER
Dotemu

REVIEWED ON
GTX 980, Intel i7-6700K, 16GB RAM

MULTIPLAYER
Up to 4 player co-op

LINK
streets4rage.com

hits on enemies in rapid succession, but if you get hit mid-combo you lose all the points you were accruing. Except sometimes I’d get hit and keep the points. It wasn’t obvious what was happening either way.

Even after a few hours with Streets of Rage 4, I didn’t feel like I had a good sense of how to significantly raise my score. It’s fine for a scoring system to judge you harshly and demand excellence, but that only works when a game teaches you how to get better. That’s one area where Streets of Rage 4 really could’ve modernised. It’s also just as frustrating today as it was 30 years ago to scroll a vital healing item off screen, with no option to go back. Would you please just let me grab the damn roast chicken!

Four-player co-op is a nice option and locally it’s smooth as butter, but online, playing with another PC Gamer editor close to me in California, the game was sometimes sluggish. It was still playable, but I could immediately spot the difference. Based on my experience I’d wouldn’t expect it to reliably match the fluidity of offline play.

The limitations of ’90s-era design stand out more when you’re playing Streets of Rage 4 solo. I had a blast in the more chaotic co-op playing with my roommate on the couch. I know there will be people who delight in S ranking every level on the hardest difficulty, but for me, these games are at their best when you’re mashing buttons a lot and thinking a little.

Co-op on the hard difficulty setting gave me exactly that: a three to four hour tour through some beautiful, creative stages, and a soundtrack that will still rule when the next Streets of Rage comes out, even if that takes another 25 years. ■

PC GAMER

VERDICT

Streets of Rage 4 doesn't do much to innovate, but it's a beautiful brawler with just enough depth to stay engaging.

76

GUESS THAT THUG *Fun and games on the mean streets*

Streets of Rage has a history of... interesting names for its bad guys. Streets of Rage 4 brings many of them back. Can you match the right name with each of these portraits?



Abadede
Diamond
Dylan
Feroccio
Galsia
Gold
Murphy
Nora
Raven
Soya

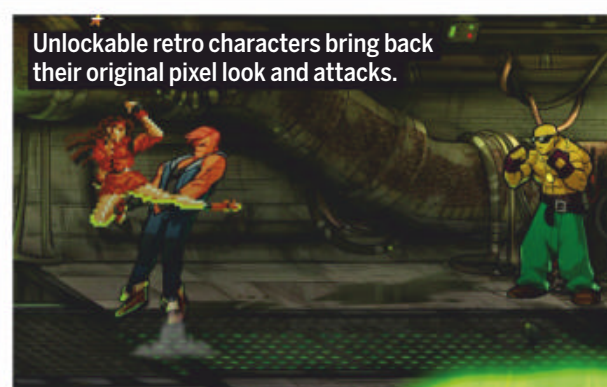
Answers: 1. Nora, 2. Murphy, 3. Diamond, 4. Soya, 5. Abadede, 6. Gold, 7. Dylan, 8. Feroccio, 9. Galsia, 10. Raven



There's always an elevator level.



The art direction is truly spot on.



Unlockable retro characters bring back their original pixel look and attacks.



Retro characters get their old special moves, too.



2020 Blaze and 1991 Blaze team up.

PEEP SHOW

The pacifist **BEFORE WE LEAVE** takes extermination out of the 4X. *By Ian Evenden*

Space whales. It's a combination of words that leaps off the page at you, but the closest thing to an antagonist this gentle city-builder has aren't to be feared: they're only after your vegetables. *Before We Leave* is a non-violent city-building/4X game that wears its hexes proudly, a tiny bucolic sphere of them (plus 12 hidden pentagons to make it geometrically possible) hanging in the void whose inhabitants initially only know how to grow potatoes.

The citizens of your new civilisation emerge from the ashes of an old one – a bunker that looks rather like a repurposed missile silo. This not being *Fallout*, your priority is housing, and it's a rather wonderful world to emerge into, all fertile plains and rocky highlands. Humanity has been underground long enough for the Earth to regenerate, but not long enough to evolve into Morlocks. It's a perfect balance.

Despite the occasional bit of wreckage from the prior owners of the continent before they nuked themselves into oblivion, the land is lush and forested. Deserts, rocks, ice, and the like are introduced later, but everything is covered in a splendid layer of hex-clouds that retreat and reshape as you spin the globe around. Zoom out far enough and you can see the local star too. This means a day/night cycle, which leads to changes in population behaviour, and makes it harder to see what you're doing, at night.

The citizens are cute. They trundle around like wooden toys but are, unfortunately, known as 'peeps' – a twee touch that borders on the unforgivable. Look past this, and you find they are all individually named, are blessed with their own personalities, and have happiness levels that can be raised by cleaning up pollution, improving their diet, building fountains, or providing suitable clothing.

Build rockets and colonise the other planets in your solar system

BRIGHT SIDE

The hexes may recall *Civilization*, but *Before We Leave* has more in common with small-scale games such as *Frostpunk*. There's none of that title's grimness here, though, and no micromanagement beyond the usual obsession with roads. You can spend time with the game on pause, plotting out a transport network, or you can go freestyle from the start, reacting to the need for growth by demolishing huts to make way for road access to the forest. Reduce

NEED TO KNOW

WHAT IS IT?
A city-building 4X without warfare

EXPECT TO PAY
£20

DEVELOPER
Monkey Games

PUBLISHER
Monkey Games

REVIEWED ON
Threadripper 2950X, 64GB RAM, GTX 1070Ti

MULTIPLAYER
No

LINK
balancing
monkeygames.com

peeps' travel time between an iron mine and the smelter, and you'll increase efficiency. This increases your stock of materials, which leads to much faster building.

Explorers are essential, bringing forebearer technology back to the library to research new ideas of your own. Even this comes in two flavours, red and green, that can't always be found on the same landmass. Other ancient equipment can be repaired, like the Transmogripher that turns raw materials into tools. The game regulates its pace through the happiness of your peeps: if they're feeling down they don't work as fast. This leads to a regulated flow of new buildings, as a depressed population and the resulting lack of materials will bring work to a halt.

It's a refreshing change to play a building game, especially one with 4X tendencies, that doesn't act as a cover story for building up a mass of materiel and trying to nuke Ghandi. No roaming gangs of bandits will come broiling over the hill with their gimlet eyes set on your valuables – your vault must have been the only one. Even the aforementioned space whales are an annoyance rather than a society-ending problem.

If there's a goal, it's taking your civilisation to the stars. Build rockets and colonise the other planets in your solar system. Getting to the end of the tech tree without firing a shot is satisfying in itself, and doing so in the knowledge you made your peeps happy even more so. The game's hopeful outlook on the future provides a calming mood. Sometimes it's nice just to build without worrying about it all being taken from you, and despite the frustration that can set in when everything slows down, *Before We Leave* nails that. ■

INFO OVERLOAD *There's a lot going on round the edges of the map*

1 PAUSE

Pause the game at any time, and control its speed.

2 SAD FACE

Someone's unhappy. Quick, build a fountain!

3 PRODUCTION

Happy peeps making happy goods.



4 ATTENTION!

Something's missing, or needs your help.

5 CONTROLS

Build anything, from roads to glassworks.

6 SHIPPING

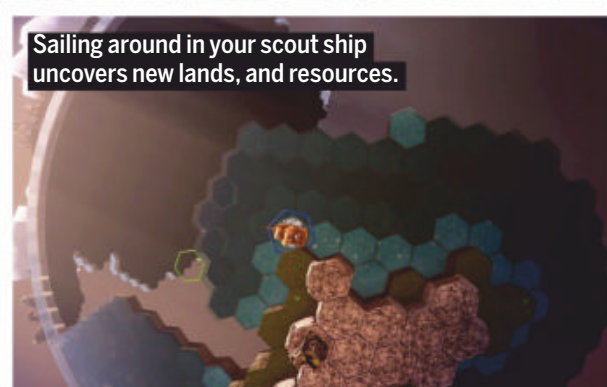
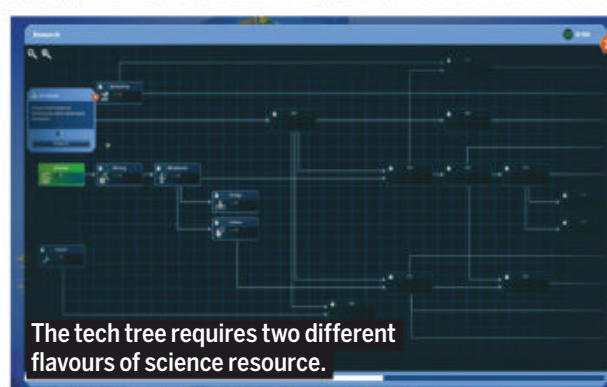
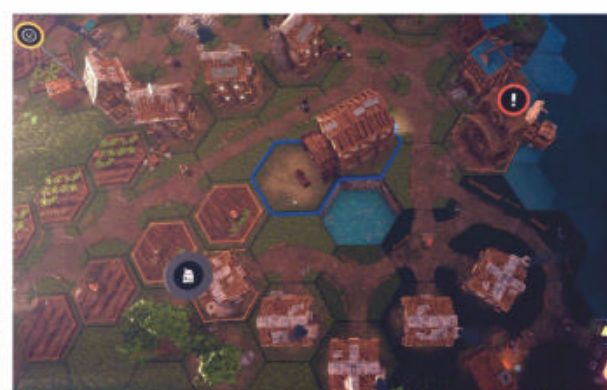
Move goods, peeps or research between colonies.

PC GAMER VERDICT

Before We Leave is a cute little city-builder with big ambitions and even bigger cosmic cetaceans.

71

Shipping routes can be automated, or you can manually send whatever's required.





Silly time to lose your head.



There's a real artistry to the pixel art.



Bodies pile up fast in Survival mode.



IS THE DEEPEST

FIRST CUT channels the spirit of a Square classic

Bushido Blade has cast a long shadow. For me, at least, if no one else. Here was a fighting game that didn't require you to memorise a massive list of combos, and that echoed the swift, tense brutality of the best sword duels in films and on TV. In that polygonal PS1 classic, you could die in a single strike, and deal similarly deadly blows to your opponents. Therefore blocking, evading and the angle of attacks were all paramount, as one wrong move was all it took to invite disaster. A few games have offered glimmers of *Bushido's* essence in the years since, but the closest yet is *First Cut*, which is essentially *Bushido Blade* but in 2D.

Duelling here is remarkably simple, but still replete with tactical possibilities. You have an attack button, which allows you to strike from on high, from a low angle, or straight in front of you. You can also dodge, by ducking down and darting behind, or dipping into the background. Slash your sword in concert to your enemy's attack and you'll parry it, and survive. Don't and you'll bear witness to a gory finishing move that will sever your head from your body, or chop you in half. It's a basic system, perhaps, but this is really all you need to create engaging blade bust-ups, full of immediate high drama, and with sudden endings to disperse the palpable tension.

You can duel with a friend offline, or you can take on the computer

It helps that *First Cut* looks rather fantastic, a stage brought to life by its tranquil rural backdrops, and beautifully animated pixel characters. But it's the details that make it: the swaying grass that trims as you slash your blade against it, and the blood that clings on to your sword after a successful attack, flicking into the air at the moment you utilise the sword again. This is a game you can exploit easily, by dispatching your opponent as they're removing their sword for battle. But – in a stroke of lateral genius – the game detects this *dishonourable* action, and even, bizarrely, allows it: it merely doesn't add the honour-less kill onto your score as it's not up to the code.

NEED TO KNOW

WHAT IS IT?

A one-on-one duelling game set in ancient Japan

EXPECT TO PAY

Free

DEVELOPER

Drasnus

PUBLISHER

In-house

REVIEWED ON

AMD A4-6300@3.7GHz, 6GB RAM, GeForce GT 610

MULTIPLAYER

1-2

LINK

bit.ly/FirstCutGame

SLICE OF LIFE

You can duel with a friend offline, or you can take on the computer, which I've found to be reasonably convincing. The game's best mode is Survival, which pits you against an endless procession of enemies: you remove one, and then another coolly steps in over its corpse. Backed by a suitably chill soundtrack, this mode is surprisingly zen: fail it and, surely, you'll just hit restart to begin the absorbing trial again.

Today, you have plenty of options for scratching a sword-fighting itch, including big games such as *For Honor* and *Chivalry*. But in paring everything back – there's no unlocks, no high scores, no persistence of any kind – *First Cut* is perhaps more honest to the in-the-moment spirit of the classic one-on-one duel. There are no devastating combo attacks, no +1 pauldrons to tip the odds. It's just you and your opponent: a level playing field soon to be spattered with someone's blood. ■

PC GAMER

VERDICT

A fighting game for people disenchanted with fighting games. This is simple, streamlined, and bloody good fun.

83

SINK OR SWIM?

So long and thanks for all the fish, **DEEPDIVE**

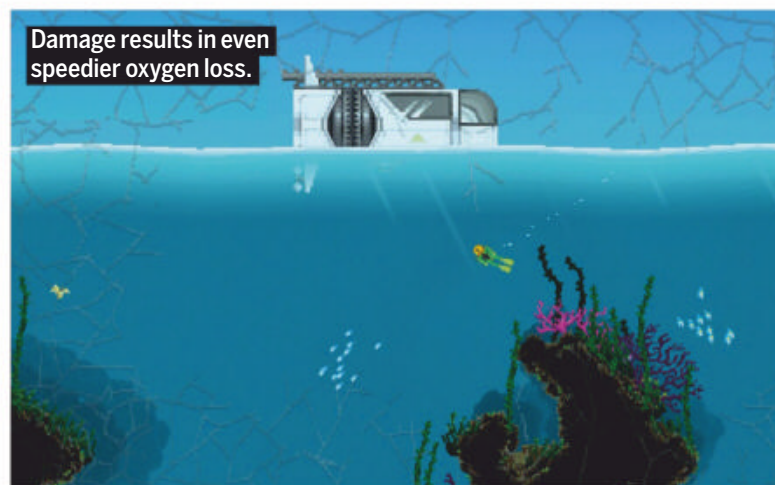
Subnautica engrossed me completely with its vast, detailed ocean and engaging sci-fi mystery. If you feel similarly, then you'll want to play *Deepdive*, which compresses its ocean down to a lake, while flattening it to two dimensions for good measure. There's no sense of mystery, unfortunately. In fact, there's no plot in this at all; just the sea and a diver eager to explore its depths.

This short, sketchy approximation has mimicked its forebear remarkably well. Your little diver feels suitably vulnerable as you propel them around a hostile, teeming ocean. Your ultimate goal is to descend to its deepest point, and to do that you'll purchase upgrades back at your lifeboat: you can enhance your speed, oxygen, inventory space, etc. Money is earned by scanning lifeforms, and by digging up precious gems.

There's a satisfying if hasty progression loop and yet danger is never far away. There's your pesky insistence on oxygen, which only eases after a few costly upgrades. But there are also the locals, roughly half of whom are alarmingly keen to bite you. Death is inevitable, in this sorta-roguelike but without the procedural generation. Nor is it, weirdly, that punishing.

There's a bug, unfixed at the time of writing, that allows you to keep any acquired upgrades when restarting the game – so long as you haven't quit to the desktop. Think of this as an opt-out 'easy mode' that lets you explore the world at your leisure – and it's the environment where *Deepdive* best echoes its inspiration. Its attractive, occasionally murderous sea is a place you'll want to explore. A place you'll simply want to be in for a while. ■

60



NEED TO KNOW

EXPECT TO PAY
Free

DEVELOPER
vfqd

LINK
vfqd.itch.io/deepdive

BIN JUICE

Exploring a collage of junk in **REMNANTS**

Have you ever noticed that one peasant's shack in an RPG is much like any other? Assets repeat, necessarily so, otherwise games would take millennia to be developed. Well here's a tiny glimpse of a world where nearly every asset is unique. Every distinct room is cluttered with items, *remnants* if you will, of life on Earth, in all its technological, religious, banal and slightly terrifying glory.

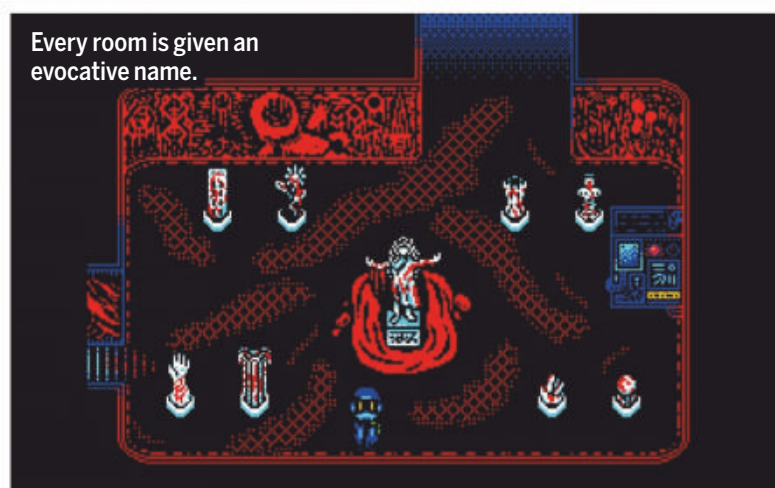
Made in *RPG Maker*, this feels like a traditional SNES JRPG, but without the battles, NPCs, or villages. You play as a person who has decided to delve into a subterranean structure, for reasons hastily explained by the rather insubstantial ending. But let's cast that aside and focus on the other character, *you*: an archaeologist sifting through millennia of junk. Each level of the ominous structure

brings a new themed floor of carefully designed rooms: one might look like an alien garden, another a game arcade, yet another an eerie temple from a horror story. Its arresting imagery is drawn from sci-fi, horror and fantasy – it's the scenery as plot, relating tantalising story fragments as you insist on interacting with simply *everything*.

There are (almost) no repeats, either of objects or their text descriptions, and a line of exposition for nearly everything you can see: every weird mural or doodad. *Maybe* there's a story connecting it all, but where's the story in archaeology? Here, too, it's speculation based on scraps of evidence.

I didn't feel a need to extrapolate a plot to explain this glorious heap of trash. I merely enjoyed sifting through it, delving down to see what sights were lying in wait. ■

72



NEED TO KNOW

EXPECT TO PAY
Free

DEVELOPER
June Flower

LINK
june-flower.itch.io

THEY'RE BACK

OLD GAMES REVISITED by Matthew Elliott

"Thrakzulk would sometimes stare out to sea and remember home-home."



RATS ENTERTAINMENT

Revisiting a lost planet in **WARHAMMER: THE END TIMES – VERMINTIDE**

There was a time, far back in the World-That-Was of 2013-ish, when the thought of a buddy comedy set during the destruction of the Warhammer world would have felt impossible. *Warhammer Online* was dying. Mediocre 40k games erupted onto Steam like boils. And then *Vermintide* appeared, clutching a brace of ideas borrowed from *Left 4 Dead*, and Warhammer fans once again began to believe in the power of prayer.

It's still great fun. Skaven enemies fall apart in satisfying, cold sausage chunks. The randomised swarming elements make every level worth replaying. And the stern difficulty feels like a genuine test of your planning and teamwork, especially when the game starts peppering you with specialist enemies. But for me, the thing that still stands out is the detail and adoration for the world – something glimpsed from afar in the likes of *Total War: Warhammer*, but explored here in close detail. You're often too busy hammering rats to appreciate it, but it's there if you stop and explore.

I played loads of *Vermintide*, but never finished it. And, at the time of writing, there's something especially appealing about teaming up with a group of friends, heading to a cosy

bar, and battering the everliving piss out of plague-carrying rats. It's also a reminder of how much fun online gaming can be with the right group of people. You'll know a true friend when the only thing they care about is how much damage their shield soaked up.

It's also a reminder of how much fun online gaming can be

Speaking of which, one of the best bits of *Vermintide* remains the interaction between its oddball heroes. There are some lines that still sing, even when you're hearing them for the

100th time. Victor Saltzpyre's officious, upset GCSE music teacher, "Let's not get carried away!" is a particular favourite. And, best of all for a lifelong Warhammer dork, there's no dilution here. Bardin the Dwarf calls out his warnings in broken Khazalid, and, it's on you if you don't know what the dwarf word for 'rat ogre' is. (It's pretty obvious.)

NEED TO KNOW

WHAT IS IT?
Left4Dead's pest control DLC

EXPECT TO PAY
£23

DEVELOPER
Fatshark

PUBLISHER
In-house

REVIEWED ON
Intel Core i7-7700 CPU
@ 3.60GHz, 16 GB RAM,
NVIDIA GeForce GTX
1070, Windows 10

MULTIPLAYER
Online co-op

LINK
bit.ly/2xRjuSt

Vermintide somehow still works despite the annoyances. The most difficult levels take place across narrow beams and rickety bridges, and being knocked off them often leads to a party wipe. It can be staggeringly imprecise at times, most notably when you're struggling to yank a downed teammate back into the game. And the loot system is miserly to the point of belligerence – even the toughest levels will only reward you with middling gear.

FORGIVENESS

But it's an easy game to forgive. In much the same way that the disparate adventurers in the game pull together despite wretched circumstances, it's fun to weather *Vermintide's* idiosyncrasies. Some levels can start with a wipe almost immediately, but it's still enough fun that you can sigh, chalk it up to unfair circumstances, and head back in with dogged optimism of a dwarf after a barrel of Bugman's. ■

PC GAMER VERDICT

Gloriously messy and unrepentantly tough, *Vermintide* is a workmanlike multiplayer classic.

75

DEER, WHITE PEOPLE

Killing nature in **THE HUNTER: CALL OF THE WILD**

Even with the tutorial's laconic, Sam Elliott drawl explaining the basics to me, I still manage to mess up my first kill in *theHunter*. I clip the deer's neck then have to spend ten minutes following blood trails to find it. But it doesn't matter. As it turns out, pursuing a terrified deer through miles of dense undergrowth is exactly the introduction you need to this curiously zen-like animal murder simulator.

So much of what I enjoy about this game happens between kills: the cautious tracking of animals, the signs of other nearby life and the focussed dedication you feel following a single target. It makes *theHunter* one of the most unique stealth games I've ever played, and certainly the slowest. I'm constantly at war with my own impatience. Animals are quick to flee and the

element of surprise always feels hard fought. And once it's gone, regaining it feels like putting shaving cream back in the can. This means that *theHunter* requires a degree of patience unlike anything else I've played. At the risk of sounding sinister, I, generally quite happy to spend my time crouched behind a thicket in a game, but there are times when there's too much nothing happening in *theHunter*, even for me. But this does make those precious moments when you finally take a shot hugely exhilarating.

I'm not keen on the subject matter – few things fill me with hatred like seeing some slack-jawed chad sitting atop the corpse of a lion that's been shot at 600 metres – but *theHunter* feels like a different beast. It's not exactly Doctor Doolittle, but I feel like I know more about animal behaviour having played it. ■

69



NEED TO KNOW

EXPECT TO PAY
£20

DEVELOPER
Expansive Worlds

PUBLISHER
In-house



THE HAUNTED ISLAND, A FROG DETECTIVE GAME

The Haunted Island is one of those games that sends me into a spin regarding how much game is enough. It's funny, well-written, and lets you judge a dance competition between cartoon animals. Lovely. On the other hand: it takes about the same amount of time to complete as a buffet lunch. It's also a reminder of how long it takes to make games. If this was an episode of Brooklyn 99 I'd have binged the next three seasons instead of waiting months for episode two. The puzzles are really simple but it's characterful enough that it rarely drags. Like a Lindt bunny it's small and sweet and you'll wish it was bigger. ■

68



AVIARY ATTORNEY

Continuing with the theme of 'animals', *Aviary Attorney* is a game about bird lawyers navigating the political turmoil of 1840s France. It's a dense, amusing visual novel in which you have to win cases using smart cross-examination and evidence gathered from your investigation on the streets of Paris. It sounds pretty goofy, but the characters are actually really well realised, and it's possible to get things horribly wrong as you struggle to piece together exactly what happened in each case. This makes it a rare bird indeed: a game where you have to live with your decisions, rather than simple starting again until you achieve the perfect outcome. ■

75



GOAT SIMULATOR

If *Goat Simulator* was a restaurant, it'd have a great name and inedible food – the game equivalent of the Abra-Kebabra on your corner that got shut down for serving human hands. It's nothing more than an enticing name and 30 minutes worth of tepid, physics-based distraction, but somehow less endearing. Coffee Stain Studios even warn buyers that their money would be better spent on a pile of bricks. It's not a hateful or exploitative game – just not nearly as good as the 'very positive' reviews suggest. ■

37

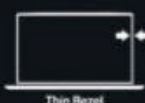


THE GAME JUST
GOT REAL



GE65 Raider

BOUNDLESS VISION, FEARLESS POWER



Cooler Boost 5

240Hz

Up to Intel® Core™ i9 processor | Windows 10 Home / Windows 10 Pro | Up to NVIDIA® GeForce RTX™ 2080

WHERE TO BUY

laptopsdirect >
The UK's Largest Laptop Specialists!



OVERCLOCKERS UK

SCAN S

uk.msi.com

HARDWARE

GET THE PC YOUR GAMES DESERVE



90

BUYER'S GUIDE

Our expert advice for building your next PC.

84

GROUP TEST

The best gaming mice, reviewed and ranked.



88

TECH REPORT

The computers that are being built like brains.



GROUP TEST

GAMING MICE

Choose your mouse wisely – it's key to getting the most out of your PC's gaming performance. *By Jacob Ridley*





You’ve got to put the work in to stay at the top of your game, and in a world of ever-evolving PC peripherals that means being wised up to the latest tech trends. The humble mouse may feel like a given – you’re bound to get by with the off-white office rodent you found in the shed – but some off-cut kit isn’t going to convince your friends and family that you’re living your best gamer life. And that’s all we really want, isn’t it?

With a new gaming mouse announced what feels like every other week, there’s one for every hand, player, and genre of game available to purchase. The problem is sifting through the hundreds of products that don’t fit the bill, in order to find that golden rodent that feels like it was crafted bespoke for your very own digits.

To save you from doing that yourself you can check out our top picks from the ones we tested and choose a mouse from there.

2

G502 Lightspeed

LOGITECH **£130**

The best wireless gaming mouse

1 The Logitech G502 is legendary. Everything from the shape and weight, to the smartly placed buttons down the left-hand side, it’s a fan-favourite thoroughbred. So as soon as Logitech announced it was bolstering its famed mouse with Lightspeed Wireless technology and its top-of-the-line Hero 16K Sensor, it was a near-enough a guaranteed winner.

It’s a little more ‘gamer’ than its Logitech G Pro Wireless compatriot. It’s noticeably more extreme and sharp in appearance, but it’s not to a fault. Despite a heavy dousing of

right-angles and cool cutaways, it’s one of the comfiest mice we’ve ever laid our right-hand on.

It’s incredibly speedy at up to 16,000 DPI, and there are precisely 11 buttons for your macro pleasure. So it’s a well-rounded bit of kit for any type of gamer, be that MMO, FPS, or something in between. Add a 48-hour battery and you’ve got of one of the finest gaming mice to be born into existence.

PC GAMER VERDICT

- ⊕ Superb sensor
- ⊕ PowerPlay compatible
- ⊕ Configurable weight
- ⊖ Expensive

SPECS DPI: 16,000 / **SENSOR:** OPTICAL / **INTERFACE:** USB / 2.4GHZ WIRELESS / **BUTTONS:** 11 / **SHAPE:** RIGHT-HANDED / **WEIGHT:** 114G

Basilisk V2

RAZER **£80**

An all-round exceptional gaming mouse

2 The Basilisk V2 is a shining example of Razer going from strength to strength with its gaming mice designs. This superb update to a popular design adds the Focus+ Optical sensor and optical switches under every button. Most captivating of all, however, is the customisable scroll wheel.

Between the PTFE mouse feet on the underside of the mouse lies a resistance wheel for granular adjustment of the scroll wheel. Prefer your scroll wheel clunking along like an old steam train? Crank that scroll wheel up to tactile. Prefer your gear slick

and well-oiled? You can turn off any tactile response entirely and freewheel to your heart’s content through the shipping forecast.

Knock it back a touch towards tactile and you’re in the sweet spot for gaming. The Basilisk’s Hypershift thumb lever adds another macro dimension for deep customisation, too, which all together tallies for a gaming mouse that’s encroaching on hallowed gaming royalty ground.

PC GAMER VERDICT

- ⊕ Tons of macros
- ⊕ Customisable scroll wheel
- ⊕ Fluid movement
- ⊖ Unnecessary DPI setting

SPECS DPI: 20,000 / **SENSOR:** OPTICAL / **INTERFACE:** USB / **BUTTONS:** 11 / **SHAPE:** RIGHT-HANDED / **WEIGHT:** 92G

GROUP TEST

STELLAR VALUE, INCREDIBLE PERFORMANCE, AND LIGHT AS A FEATHER DESIGN

3

Model O Minus

GLORIOUS £45

The best competitive gaming mouse

3 When the Model O Minus (the Model O is slightly larger) weighs in at 58 grams, and is stuffed with both the functionality you really need in a competitive gaming mouse and RGB lighting, I think we can look past its eccentric “look at me” appearance.

I’m not a huge fan of the looks of the Glorious Model O Minus. It’s sort of ugly. What is with those cutouts? But each to their own, I suppose – you can just drop your angry letter onto the pile alongside the ones from that time I called Noctua’s brown/beige fans ‘pretty’. What I do applaud the Model O Minus for is its stellar

value, incredible performance, and light as a feather design.

Glorious has truly nailed down what’s necessary in a gaming mouse to give you the competitive edge you require in-game. It’s fitted with a superb Pixart 3360 sensor, reliable switches, a colour-coded DPI switcher, and a lightweight and flexible cable that won’t distract you when you’re in the middle of a game of *Call of Duty*.

PC GAMER VERDICT

- ⊕ Lightweight
- ⊕ Accurate sensor
- ⊕ Excellent value
- ⊖ Ugly

SPECS DPI: 12,000 / SENSOR: OPTICAL / INTERFACE: USB / BUTTONS: 6 / SHAPE: RIGHT-HANDED / WEIGHT: 58G

G Pro Wireless

LOGITECH £130

Wireless gaming without sacrifice

4 Every gaming mouse is selling itself on improving invisible odds. Slivers of latency, marginal improvements, millisecond responses – you know it’s better than that yellowing office rodent, but you have to work on your own skills to unlock all of its potential. Well, except the G Pro Wireless, which had a seemingly immediate effect on my gaming proficiency.

Perhaps it was the shift from a wired mouse to the freedom of a wireless one, or maybe it’s my inclination to lighter mice – the G Pro was by far the lightest I’d tried at that time. Either way, my K/D was grateful for the change.

Powering that experience is the HERO 16K sensor, a highly responsive and instantaneous sensor and the same one within the superb G502 Lightspeed. That’s housed within an endoskeletal shell to keep it light and fleet of foot on your mouse mat. Beyond that, the G Pro’s formula is straightforward – aside from the replaceable thumb switches that turn this into an ambidextrous hero.

PC GAMER VERDICT

- ⊕ Lightweight
- ⊕ Ambidextrous
- ⊕ PowerPlay compatible
- ⊖ Expensive

SPECS DPI: 16,000 / SENSOR: OPTICAL / INTERFACE: USB / 2.4GHZ WIRELESS / BUTTONS: 8 / SHAPE: AMBIDEXTROUS / WEIGHT: 80G

TECHIE TERMINOLOGY

We test gaming mice the only way we know how: spending hours playing a range of videogames. There are at least a handful of (loosely defined) variables we can measure on a per product basis to quantify what makes a gaming mouse great. Here are a few deliberately obtuse terms to look out for when researching your next mouse:

Sensor – At the core of most gaming mice is an optical sensor. These are consistent, reliable, and quick. Another common variant is what's known as a laser sensor. These offer speed and flexibility across any surface, however, you'll not often find them in modern gaming peripherals due to being less accurate on the whole.

CPI/DPI – Counts per inch / dots per inch. CPI is the technically more accurate term, and therefore has given way to DPI. Both give an indication of mouse sensitivity: how far the on-screen cursor moves to an inch of mouse movement. A mouse brandishing a 16,000 DPI may appear to be the best on paper, but that's not necessarily true.

Lift-off distance – Not as exciting as it sounds, lift-off distance refers to the height a mouse can be lifted off a surface before the sensor is unable to track its movement. It is an important metric for professional gamers, especially those with a proclivity for rapid flick shots that require accuracy.



Kone Pure Ultra

ROCCAT £60

Lightweight and modest

5 Unlike some of its competitors, renowned manufacturer Roccat has instead chosen to keep its lightweight gaming mouse covered up. More than merely a move towards modesty, the Kone Pure Ultra shaves weight using a weight-saving internal structure.

The impermeable exterior saves you the hassle of reaching for your compressed air every week to give your mouse's innards a clear out, and the bulbous and finely shaped construction of the shell ensures it's comfortable over long periods. It only tends to slip out of your hands if you're really sweaty.

At 66g, the Roccat Kone Pure Ultra just goes to show you don't need to get too drastic with weight-saving measures to create a gaming mouse that's plenty light enough to give you the edge. There are even a couple thumb switches and easy-to-reach DPI switchers to augment your game. It's also powered by Roccat's well-to-do Owl-Eye sensor, and features a zero debounce mode to increase responsiveness.

PC GAMER VERDICT

- ⊕ Sturdy
- ⊕ Zero debounce mode
- ⊕ Lightweight
- ⊖ Slippery construction

SPECS DPI: 16,000 / SENSOR: OPTICAL / INTERFACE: USB / BUTTONS: 7 / SHAPE: RIGHT-HANDED / WEIGHT: 66G

Sensei 310

STEELSERIES £60

The choice of left-handed champions

6 What's a gaming mouse roundup without the Sensei? Incomplete, that's what. Steelseries is bringing its A-game with the Sensei 310, which appears to have already gained the status of celebrated classic in the esports and competitive gaming world.

The Sensei brags a non-slip plastic construction that not only prevents accidental launches, but also makes it one of the comfiest mice around. It's a snug fit for your hand, too, with a contoured yet simple shape that is agreeable to both palm and claw grips. If you want a design tailored to a right hand, the exact same

specifications can be found on the Rival 310's spec sheet. But for left-handed players, this mouse comes as a godsend.

The TrueMove3 sensor at its centre is a custom endeavour in partnership with PixArt, the company responsible for a number of the best gaming mice sensors in the market today. Thus ensuring that no matter how much you throw this mouse around, it's sure not to get dizzy.

PC GAMER VERDICT

- ⊕ Ambidextrous
- ⊕ Comfortable
- ⊕ Great value
- ⊖ Small

SPECS DPI: 12,000 / SENSOR: OPTICAL / INTERFACE: USB / BUTTONS: 8 / SHAPE: AMBIDEXTROUS / WEIGHT: 92G

A single board from within the Pohoiki Springs box. Intel hasn't given details about how the multiple chips, or their boards, are connected together.

NERVES OF STEEL

How Intel is taking inspiration from our neurons for next-gen chips

Intel loves a good codename. Who remembers Dragontail Peak? Or Lizard Head Pass? Or even 2008's White Salmon? Great days. All of those refer to motherboards, but Pohoiki Beach is different – it's a new way of building computers that's based on the human brain. Neuromorphic computing – literally 'nerve shaped' – uses insights from neuroscience to create chip architectures.

By simulating the way human brains work in silicon, calculations can be carried out faster while using less energy. The training of neural networks can be carried out more efficiently too, with only one viewing of an object necessary for the net to recognise it forever.

Mike Davies, director of Intel's Neuromorphic Computing Lab, sees it more clearly, "Neuromorphic computing entails nothing less than a bottom-up rethinking of computer architecture," he says. "The goal is to create chips that function less like a classical computer and more like a human brain. Neuromorphic chips model how the brain's neurones communicate and learn, using spikes and plastic synapses that can be modulated based on the timing of events. These chips are designed to self-organise and make decisions in response to learned patterns and associations."

Which all sounds a bit Cyberdyne, but we're sure this will be fine. The goal is that one day neuromorphic chips may be

able to learn as fast and efficiently as the brain, which still far outperforms today's most powerful computers. According to Intel, neuromorphic computing could lead to advancements in robotics, smart city infrastructure, and other applications that require continuous learning and adaptation to evolving data.

"The inspiration for neuromorphic computing goes back to the earliest days of computing itself," says Davies. "If you look at the early papers by John Von Neumann or Alan Turing, they actually talk about neurones and synapses, because back in the '40s they hadn't invented the terminology of conventional computing. The brain was the one example they had."

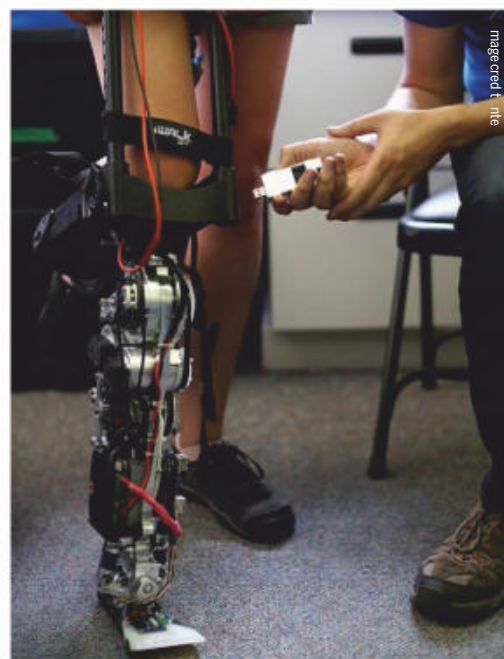
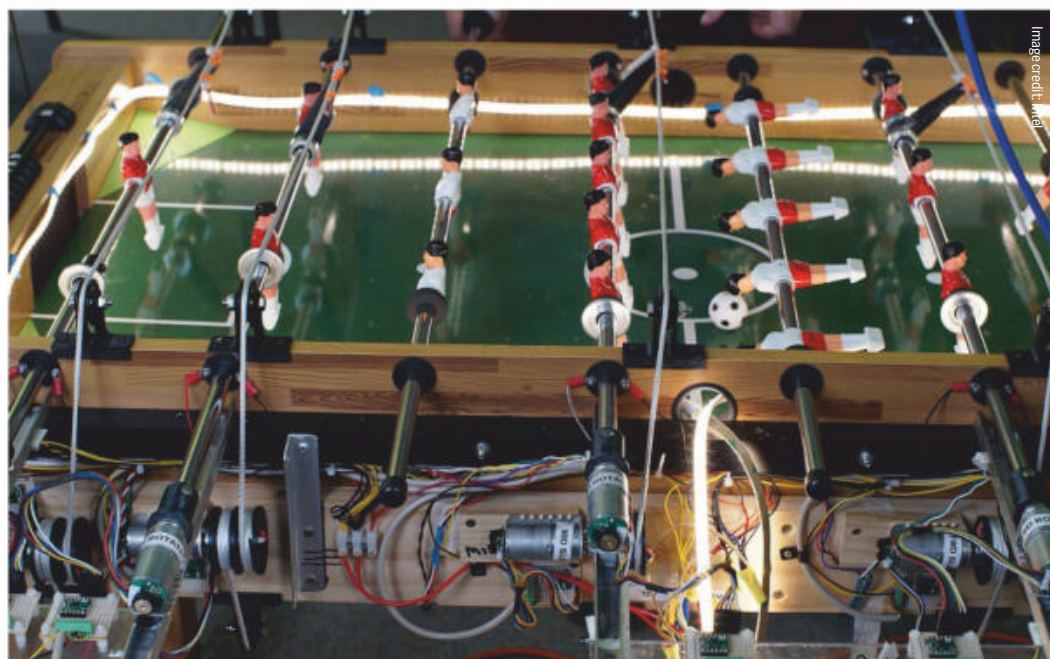
And while classical computing has been solving problems for 80 years, mother nature has been at it for billions, and has got quite good at making brains. "If you look at the human brain," says Davies, "it operates at 20W. Everything we do – simultaneously processing data streams, coming up with new ideas and insights – all that is being done at just 20W of power". For context, a Raspberry Pi 4B pulls 7.6W under load, but an i7-7700K can draw 77W while doing a bit of light gaming. Now, the i7's Kaby Lake cores probably do a bit more work per second than the Cortex-A72s powering the Pi, but it goes to show how power efficient the human brain is. Also it runs on glucose and doesn't need a fan and heatsink arrangement to be bolted to the top.

The 770 processors in Pohoiki Springs – which is the second generation of the technology after Pohoiki Beach –



Power down

In 2018, one percent of all electricity consumption worldwide went on data centres. It's not just the computing needs that take all that juice, but the cooling too. Part of the industry's response to these large energy bills is a move toward ARM processors. Neuromorphic chips could cut that cost further, "Reducing power is a really big deal and we're finding very big gains in the energy required," says Davies.



FAR LEFT: Table football, or 'foosball', that plays itself, courtesy of Loihi and Australian engineers.

LEFT: "Energy efficient three-dimension multi-contact prosthetic walking" is the aim of Caltech's prosthetic leg, powered by Loihi.

BIGGEST BRAINS *And the heads that house them*



1 SPERM WHALE
The brain of a sperm whale weighs about 8kg. These ocean giants can live for 70 years and reach 16m in length.



2 ELEPHANT
Elephant brains weigh just over 5kg. They can also live up to 70 years, and recognise themselves in mirrors.



3 BOTTLENOSE DOLPHIN
With a brain weighing up to 1.7kg, dolphins demonstrate their intelligence by having fun times in the water. Aww.



4 HUMAN
These apes with anxiety can only muster a pathetic 1.5kg brain, although the weight depends on body size.

are efficient in other ways too, as Davies explains, "Conventional computer architectures are great at invoking a lot of data parallelism to solve lots of problems at once very fast. But as you batch – like in traditional deep learning applications, for example – the latency for getting a solution increases. You have to wait until you accumulate all these data samples to process them. What neuromorphic architectures are great for is taking a single query, computing what needs to be calculated, and producing an answer very quickly."

BRAIN POWER

Those 770 Loihi processors give about 100 million neurones, roughly the same as in the brain of a mole-rat. The human brain averages around 86 billion neurones, so there's a way to go yet before parity is achieved. It's more complex than just loading more Loihi boards into the case, however, "Going beyond Pohoiki

Springs does raise some interesting issues," says Davies. "If you look in the brain, 80 percent of the volume is the white matter – long distance communication. In a sense, Pohoiki Springs is at the level where it could still be called grey matter. There's a lot of local high-dimensional connectivity, but we can get by with a plainer, two-dimensional fabric of connectivity in Pohoiki Springs. To go beyond, we'll probably have to start investing more time and research into the right way to introduce long-distance signalling in a brain-inspired way."

Loihi doesn't use long-distance signalling at the moment because, despite being made of traditional silicon, it doesn't separate processing and memory the way our PCs do, "The

data flowing through the neuromorphic system doesn't move very far compared to what you would get in a conventional architecture. You don't have to bridge multiple caches, or even beyond DRAM into flash memory. Everything is integrated into one distributed fabric of compute and memory."

Davies' next step is in identifying what neuromorphic computing is good at. Intel, in association with Western Sydney University and the 2019 Telluride Neuromorphic Cognition Engineering Workshop, has already produced a game of table football that plays itself using input from cameras, and a more serious application comes in the form of the AMPRO3 prosthetic leg, from Caltech's AMBER Lab and

Canada's National Research Council. The leg can track objects and adapt to unforeseen circumstances, with processing handled by Loihi chips. But this sort of thing, while interesting, isn't where Davies' heart lies,

"What we're really interested

in is finding a new, relatively general-purpose architecture for computing," he says. "We're not there yet."

"The most value will come from difficult computational problems that correspond to problems our brains are solving all the time. Our brains are constantly optimising – if you think about planning paths, or thinking about the trajectory of how we might move our limbs, or planning our future, these are cognitive, abstract actions and decisions. These can be reduced to daily, well-defined computational problems. So we think there is a class of problems that will run very efficiently at scale in a system like Pohoiki Springs." ■

Ian Evenden

"THE INSPIRATION GOES BACK TO THE EARLIEST DAYS OF COMPUTING"

YOUR NEXT PC

BUYER'S GUIDE

Build the best PC for your budget



KEY

Budget build

PC gaming is for everyone. Pick the parts you want to build a new, well-rounded PC for a good price.

Mid-range build

You want to run every new game at 1080p 60fps. This recommended build will see you through.

Advanced build

You're looking for the best PC on the market and superior components. But you still want to spend smart.

BUDGET BUILD

Enjoy 1080p gaming without breaking the bank



TOTAL
£830

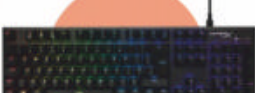
MOTHERBOARD		B450-A Pro Max MSI £95 A healthy dose of ports and PCIe SSD support has this B450 at the heart of our budget build.
PROCESSOR		Ryzen 5 2600 AMD £70 It's not quite CPU a la mode, but as a value buy the Ryzen 2600 can't be beat – for the price it's an absolute steal.
GRAPHICS CARD		Radeon RX 5500 XT 4GB Pulse Sapphire £191 With the latest manufacturing know-how, AMD's pieced together a graphics card that nails 1080p gaming.
COOLER		Wraith Stealth AMD Free with the CPU Gone are the days when a stock cooler was little more than a bonus paperweight. AMD's Wraith Stealth delivers.
MEMORY		Vengeance 8GB DDR4 (2x4GB) Corsair £40 The new norm for gaming is 16GB, but dual-channel 8GB memory is enough to get by for most.
POWER SUPPLY		CX Series CX550 Corsair £74 Corsair's reputation for quality PSUs precedes them. You know you're in safe hands here.
SSD		WD Blue SN550 500GB Western Digital £67 Just because it's a budget SSD, doesn't mean it has to be slow, as the WD SN550 proves with its speedy NVMe connectivity.
HDD		WD Blue 1TB 7200rpm Western Digital £37 You don't necessarily need a HDD in 2020, but if you're a virtual hoarder, this'll give you loads of useful extra space.
CASE		Neos BitFenix £36 You'll want to minimise how often you rebuild your PC, so make sure to give it a good home. This case'll do nicely.
DISPLAY		GW2280 BenQ £105 A 1080p60 VA monitor will see you through in style and, once you upgrade, will make a superb second monitor.
KEYBOARD		G213 Logitech £40 It may be a membrane switch board, but it's stylish, and well-built. Sometimes that's worth more than cheap clicky switches.
MOUSE		G102 Logitech £35 A classic shape delivered in a sleek shell, this mouse fits all hand sizes and grips. A solid option for the money.
HEADSET		HS35 Corsair £40 This headset delivers in-game with its punchy drivers and clear microphone – perfect for video calls and multiplayer alike.

MID-RANGE BUILD

Our recommended build for playing the latest games



TOTAL
£1,455

MOTHERBOARD		B450 Tomahawk Max MSI £120 A reliable platform for your build, the Tomahawk Max also comes in black to complement any style.
PROCESSOR		Ryzen 5 3600X AMD £198 This CPU is one of the greats, and uses the Zen 2 architecture to dominate in gaming and productivity.
GRAPHICS CARD		GeForce RTX 2060 KO GAMING EVGA £320 The RTX 2060 is a taste of the good life, where frame rates are high and real-time ray tracing is possible.
COOLER		Wraith Spire AMD Free with the CPU We love a freebie, especially one as capable as the cooler included with the 3600X. This'll keep your machine running smoothly.
MEMORY		Ballistix 16GB DDR4 (2x8GB) Crucial £75 With plenty of capacity at 16GB, this unembellished memory has everything you need for gaming and more.
POWER SUPPLY		CX650M Corsair £93 The heart of your gaming PC is your PSU, and this 650W Corsair promises to keep your rig ticking nicely.
SSD		S70 1TB Addlink £150 Building on a budget doesn't mean sacrificing speed—the Addlink S70 proves you can indeed have both.
HDD		WD Blue 1TB 7200rpm Western Digital £37 Just like in the budget build, this HDD isn't strictly necessary, but for a pretty low price it's nice to have plenty of extra space.
CASE		Eclipse P400S TG Phanteks £70 An ATX case is all you need for this build. We like this one because it's simple, functional, and really nice to look at.
DISPLAY		AOC G2590FX AOC £173 Everything a PC gamer could want: 144Hz refresh rate, 1ms response time, and it's AMD FreeSync and Nvidia G-Sync compatible.
KEYBOARD		Alloy FPS HyperX £80 As the name suggests, this keyboard is built like an absolute tank, with a steel frame and Cherry MX switches.
MOUSE		Model O- Glorious £59 Lightweight and responsive, the Model O- has made a name for itself among streamers and pros thanks to its clever design.
HEADSET		Cloud Alpha HyperX £80 Does it get any better than the HyperX Cloud Alpha? Well, yes, but not anywhere close to this sort of price point.

ADVANCED BUILD

Go above and beyond with a PC powerful enough to end worlds



TOTAL
£3,689

MOTHERBOARD		Z390 Aorus Master Gigabyte £247 If you want all the bells and whistles, the Aorus Master delivers alongside Intel's high-end chipset.
PROCESSOR		Core i9 9900KF Intel £489 It's one of the fastest gaming chips around and you don't need Intel's integrated graphics with a great gaming GPU in place.
GRAPHICS CARD		GeForce RTX 2080 Super XC EVGA £762 The RTX 2080 Super is the more reasonably priced super high-end enthusiast graphics card out of the Nvidia skunkworks.
COOLER		Kraken X63 NZXT £123 One of the most stunning AIO coolers rebuilt with an updated pump and, of course, RGB lighting for more pizzazz.
MEMORY		Vengeance RGB Pro 32GB DDR4 (2x16GB) @ 3,200 Corsair £176 If you truly want to show off, even your system memory should be aglow in RGB.
POWER SUPPLY		HX750i 80 Plus Platinum Corsair £163 Platinum doesn't just sound good, it means this PSU is rated to the highest tiers of energy efficiency, too.
SSD		WD Black SN750 1TB Western Digital £169 Western Digital are back on Samsung's heels with this brilliantly fast, yet affordable, 1TB M.2 NVMe SSD.
HDD		860 QVO 2TB Samsung £195 Built on QLC flash memory, it's not the quickest storage around, but it's a speedy alternative to a HDD.
CASE		600C Corsair £135 If you're going big on parts, you should grab a case that has plenty of room for upgrades down the line. This one will do just fine.
DISPLAY		Nitro XV273K Acer £780 This one's an easy choice – 4K and 144Hz for under a grand is an offer we can't refuse, and neither should you.
KEYBOARD		G915 Lightspeed Logitech £210 Low-profile mechanical switches are just the icing on the cake that is the superb, wireless Logitech G915.
MOUSE		G502 Lightspeed Logitech £110 With a lengthy battery life and a phenomenal sensor to keep you gaming at your best, the G502 is undoubtedly one of the finest.
HEADSET		Arctis 7 Wireless SteelSeries £130 If you've settled on a wireless keyboard and mouse, the last thing you want is a pesky cable to your headset.

EXTRA+LIFE

CONTINUED ADVENTURES IN GAMING

A rare break from the mud.



“It’s a unique way of immersing yourself in the history of a sport”

Reliving Colin McRae’s greatest moments in **DIRT RALLY 2.0**

I recently acquired a Logitech G920 steering wheel for my PC, which inspired me to revisit the brutal, brilliant *Dirt Rally 2.0*. And while I’m still working on keeping my car on those rugged, muddy tracks for more than ten seconds at a time, I’ve been enjoying the game’s recent Colin McRae-themed DLC.

McRae was a household name in the late 1990s and early 2000s, not just for his talent behind the wheel, but for the series of superb rally sims he lent his name to. You can trace the DNA of *Dirt Rally* directly back to the *Colin McRae Rally* series, which makes this a fitting game in which to honour his career.

ANDY KELLY



THIS MONTH
Celebrated the career of a rally legend.

ALSO PLAYED
Over the Alps

The DLC is named the *Colin McRae: Flat Out Pack*, a reference to the driver’s famous adage: “If in doubt, go flat out.” It’s a very reasonable £8, and for your money you get 12 new routes through Perth and Kinross in Scotland, and a couple of new cars, including McRae’s famous Subaru Impreza S4.

But the coolest thing about the DLC is undoubtedly the challenge mode. Here you can choose from 40

different scenarios with unique objectives, each mirroring a pivotal (or disastrous) moment in McRae’s career. It’s like an interactive history lesson, which fans of McRae will get an extra kick out of.

In a 1988 rally in Wales, a fresh-faced McRae’s Peugeot 205 GTI suffered a damaged engine mount, which forced him to retire. In the DLC’s challenge, you begin the stage with the same broken engine mount and must place at least 5th, without breaking down, to finish it.

FINLAND’S WHITE-KNUCKLE WOODLAND TRACKS ARE LITTERED WITH SEVERE JUMPS



The classic livery of McRae's Impreza S4.



There are a lot of Scottish flags in this DLC.

Later, in 1992, McRae finished a rally in Finland having sustained heavy damage after suffering several dramatic rolls. In this challenge you have to survive a gruelling three-stage rally in Finland in a badly damaged Subaru Legacy RS, which is a nerve-racking experience.

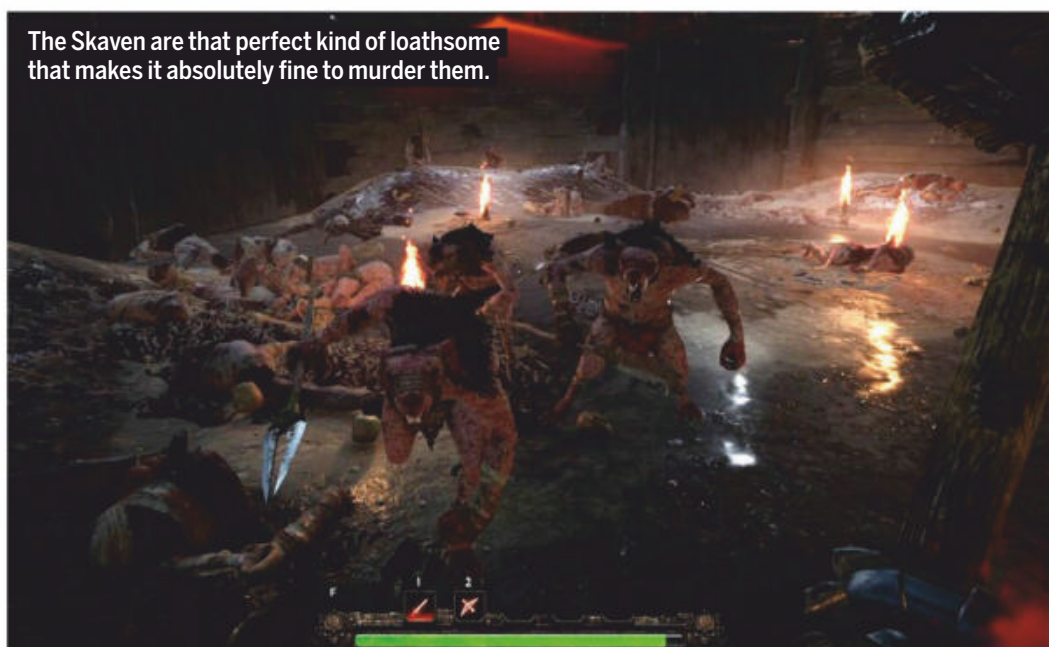
FINNISH LINE

Finland's white-knuckle woodland tracks are littered with sudden, severe jumps, and with every chassis-rattling jolt you run the risk of taking internal damage and being forced to bow out of the rally early.

I love how this challenge mode isn't just a list of arbitrary objectives, but rooted in actual events. This gives everything you do added context, and it's a unique way of immersing yourself in the history of a sport. But be warned: it's tough.

If you're a *Dirt Rally 2.0* first timer, you might want to spend some time playing the base game before you step into McRae's racing boots. Navigating his notoriously powerful, twitchy Ford Escort RS Cosworth through some of those treacherous, snowy Swedish stages is hard work.

If you prefer a more straightforward rally experience, you might find the challenge format a little too gimmicky. But I love it, and I hope other driving games steal it. By being put in these wildly different situations, you get to experience everything the simulation has to offer in a clever, compelling way. ■



The Skaven are that perfect kind of loathsome that makes it absolutely fine to murder them.

“It's the perfect lockdown game”

Reconnecting in **WARHAMMER: VERMINTIDE 2**

▶ ROBIN VALENTINE



THIS MONTH
Actually did learn how to make bread, eventually.

ALSO PLAYED
Star Wars Jedi: Fallen Order,
Gears Tactics

As I write this, my country is still in lockdown. Perhaps that will have lifted by the time you're reading – if so, hopefully you can still empathise.

Heading into this period of enforced self-isolation, I felt a strange pressure. There seemed to be an expectation that, with more free time on our hands, we'd all make a sudden burst of progress with our hobbies – we'd learn how to code, or finish painting our Warhammer figures, or conquer our gaming backlogs. And for some reason learn how to bake bread.

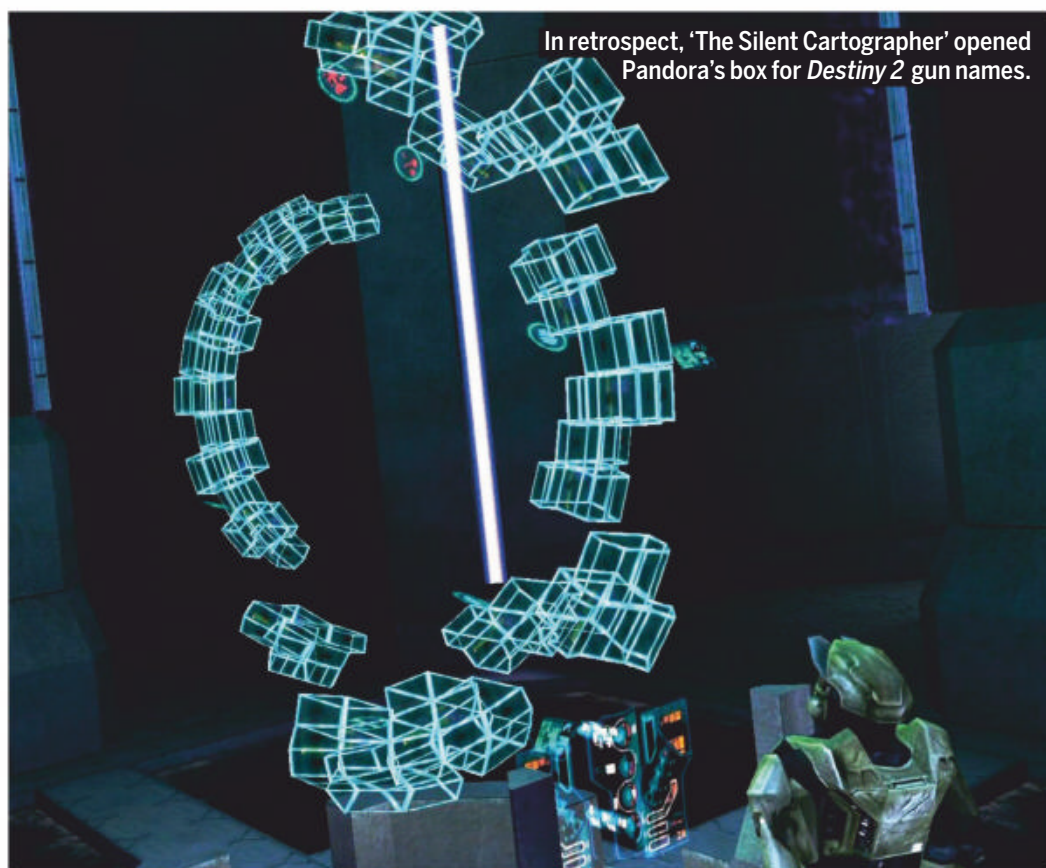
But far from feeling a surge of productivity, my tendency during lockdown has been to retreat into easy comforts. With the line between life and work more blurred than ever, and a hum of anxiety ever-present, familiar games have been more tempting than ever. Marathon sessions of *XCOM 2*, match after match of *Legends of Runeterra*, and yet another game of *Stellaris* – these have been my safety blankets against the chill of quarantine madness.

LIFE LINE

Another collective expectation was that our social lives would shrink to nothing. In reality, the situation seems to have woken everyone up to quite how many means we now have to connect with each other.

I'm gaming online regularly again, for the first time in years, catching up with old friends as we end millions of ratmen lives in the quietly brilliant *Vermintide 2*. It's a perfect lockdown game. You're pushed to constantly communicate and strategise, but not so forcefully that you can't talk nonsense at opportune moments. There's enough of a loop that you've always got more to progress towards, but not so aggressively tuned as to feel like another responsibility. And the sense of facing this overwhelming, oppressive, endless plague, and, through the strength of your connection with your friends, triumphing... it's been exactly the feeling I needed.

In fact, between that, and enjoying for the first time doing everything from playing *Dungeons & Dragons* to wargaming to having a family dinner over the internet, I'm being more social than ever. I hope that's something positive I take with me out of lockdown – despite our increasingly busy lives, we have the tools to spend time together, if we can just shake off our preconceptions of what that means. Watch out, Skaven – my friends and I aren't done exterminating you yet. ■



“I’m just trying to avoid a charge of workplace negligence”

Rediscovering the wistful world of pre-open-world shooters in **HALO: COMBAT EVOLVED**

Join me now on a journey through time and space. To a time when it seemed like there was suddenly more space. When first-person shooter developers, wielding the power of the new millennium’s 3D technology, began to push back the borders of their levels.

It began in the military simulators, which plonked players down in open terrain and asked them to crawl on their bellies through hostile territory. Games like *Operation Flashpoint* offered extraordinary freedom to commandeer vehicles and tackle scenarios from any angle. But they were also cruel; a single bullet could put a stop to your experimentation.

Though it’s not often credited as such, *Halo: Combat Evolved* marked the shift of that open-ended design to the mainstream. Yeah, there’s a lot of linear action in strangely spiritual underground monoliths. But in between those bits, *Halo* opens up – as far as there’s room to open up on a giant ring spinning in space, anyway.

In the green, widescreen spaces where its pitched battles take place, *Halo* feels like a real sandbox shooter. You might blow up a Covenant pilot

▶ JEREMY PEEL



THIS MONTH
Led men to their deaths,
then reloaded.

ALSO PLAYED
Doom Eternal,
Call of Duty: Warzone

with your rocket launcher, then turn your reticle to a distant turret. But it’s just as feasible to knock that pilot from his seat, take his Ghost for yourself, and go on a joyride.

Thanks to its recharging shields and gung-ho hero, *Halo* leaves room for mistakes that simply wouldn’t be tolerated in, say, *Ghost Recon*, which launched the same week. There’s something about a game that gives you lots of tools, but doesn’t ask you to use them all with perfect efficiency; instead you’re allowed to muck about with the possibilities.

The incentive to try different approaches comes from the marines who run around in your wake. You’re

never actually given any explicit directive to look after them, but I’ve found it nearly impossible to ignore their diminishing numbers over the course of a mission.

MASTER AND COMMANDER

Early on, I reloaded a checkpoint and discovered that, if I picked up the sniper rifle on a ridge overlooking a Covenant base rather than storming the front door, I’d be able to save more marine lives. And ever since I’ve been unable to escape that nagging sense of moral responsibility. I don’t know if Bungie envisioned Master Chief doing a headcount at the end of every skirmish like a teacher on a school trip, but that’s how I’ve ended up playing him. No need to thank me – I’m just trying very hard to avoid a charge of workplace negligence.

Oddly enough, *Halo: Combat Evolved* feels a little more freeform than some of the open-world shooters that followed, with their fondness for rote tasks. The scale continued to grow, but the possibilities became fixed and familiar. Before industry standards set in, there was a golden age where you stepped out onto rolling hills and weren’t sure what the limits were. ■

I’VE BEEN UNABLE TO ESCAPE THAT NAGGING SENSE OF MORAL RESPONSIBILITY

“In Legend of Grimrock 2, a sword is a goddamned sword.”

LEGEND OF GRIMROCK 2: pure PC gaming essence

This is what you get if you boil down *Dark Souls* until the only things left are some water stains and powdery minerals. That simplicity isn't a bad thing – this is where *Dark Souls* and plenty of other modern RPGs came from after all, the grid-based first-person dungeon crawler genre largely defined by classics like *Ultima Underworld* and *The Bard's Tale*.

In *Legend of Grimrock 2*, I'm not thumbing through item description after item description looking for narrative tidbits or scanning the environment for a sense of its history. In *Legend of Grimrock 2*, a sword is a goddamned sword. A dungeon is a dungeon. The game's goal is still something precise, but indefinable, not anything a collaborative wiki page can lay out and decrypt. The goal here is mood, and the mood is a cocktail of wonder and fear. The tension between the two is what charges every push forward into booby-trap laden dungeons with a tiny emotional tax. *Legend of Grimrock 2* is still an incredibly atmospheric game.

JAMES DAVENPORT



THIS MONTH
Murdered seven turtles and ate their children.

ALSO PLAYED
Sea Salt,
Resident Evil 4

And somehow, despite its open faced generic dark fantasy trappings and clear dedication to an antiquated genre, *Legend of Grimrock 2* feels surprisingly fresh and modern, a pure distillation of exploration, puzzle solving, and light touch RPG systems set against challenging combat scenarios you can lazily click through with one sweaty hand. I love this juxtaposition. The stats and equipment for my party of four are laid out with clear definitions and rules and the real work is in the prep. Once I'm facing an enemy, be it a turtle or an army of skeletons, whether I win or lose is rarely pinned

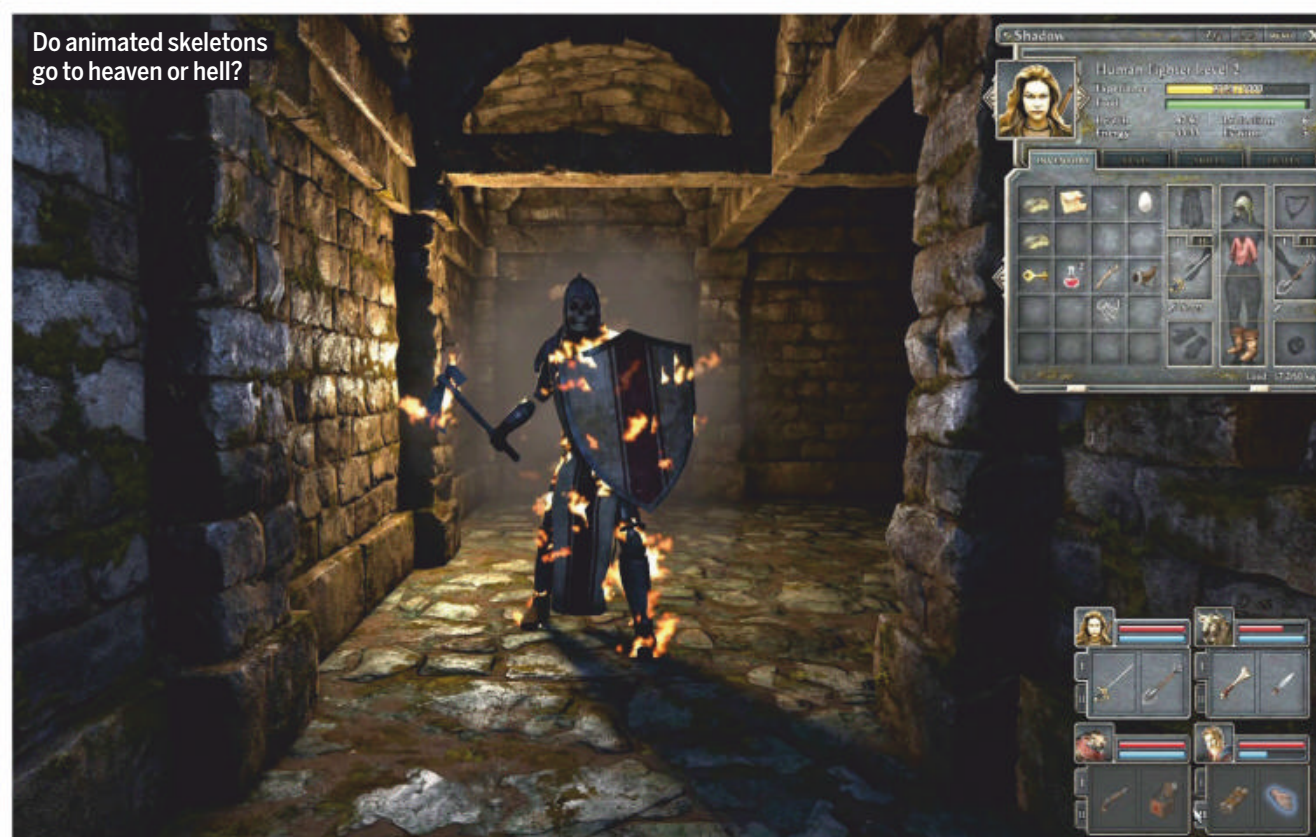
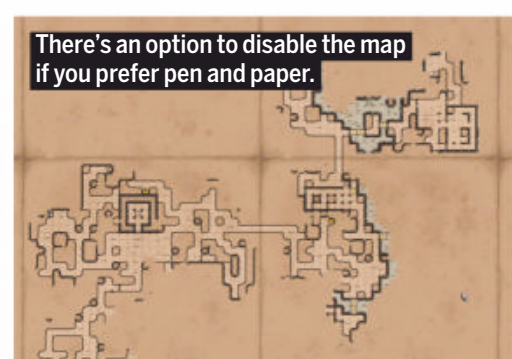
A PURE DISTILLATION OF EXPLORATION, PUZZLE SOLVING, AND RPG SYSTEMS

to how quickly I click each of my character actions on their relaxed refresh cycle, but rather on how much I explore and discover and apply prior to each fight.

ROCK N TROLL

It's easy to breeze through *Grimrock 2*'s larger spaces without digging around in the corners, but that's how you miss buried treasure and hidden switches withholding better gear and vital supplies. These are the powdery minerals, the essential satisfaction that comes from a videogame giving you a treat for looking at it closely.

And that's kind of what I'm looking for right now. After a busy release season and being in lockdown, I'm looking for something that cuts right to the cerebral cortex. I'm exploring, taking notes on a lovely digital map, slashing up werewolves and wizards, dodging traps, and thinking of literally nothing else. It's the kind of game PC Gamer was built to broadcast, but also the kind of near perfect thing that gets buried in the glut of good stuff we get every month lately. *Grimrock 2* is pure and potent, a game of pleasures and themes. Find it under 'Computer Game' in the dictionary. ■





HEARTHSTONE: ASHES OF OUTLAND

The latest update is dragons all the way down. *By Tim Clark*

It's hard to overstate what a big, risky decision it was to add a tenth class to *Hearthstone*. In the six years since the game launched, the developer had consistently played down the idea that adding another hero was a serious possibility, citing obvious problems with how to design a unique identity and balance it around and against the existing classes. But a lot has changed about *Hearthstone* in the last year or so. Since the arrival of a new leadership team led by game director Ben Lee, who joined from CD Projekt Red, the cadence of nerfs – and buffs! – has increased, the cost of collecting cards has come down thanks to the duplicate protection across all rarities, and a new mode was finally added in the form of the brilliant Battlegrounds auto-battler. But for me the biggest bombshell has been Demon Hunter, which launched alongside the *Ashes of Outland* expansion on 7 April.

It's also hard to overstate just how broken Demon Hunter was on day one. In the Standard mode, according to third party data tracking site HS Replay, the class had a 56.2 percent win rate. Which sounds fine until you consider that every other class had a sub 50 percent win rate. Demon Hunter was the only class going positive, and that win rate would have been much higher but for the fact all the Demon Hunters were playing each other. "It was the most powerful deck I've ever seen since starting the Data Reaper Project," Vicious Syndicate founder Ohad Zach told me. "It made Galakrond Shaman in the first week of *Descent of Dragons* look like an arena deck. It's very possible that a refined aggro

NEED TO KNOW

RELEASE Out now	DEVELOPER Blizzard (Team 5)
PUBLISHER Blizzard	LINK bit.ly/35jitPt

Demon Hunter would have exhibited a win rate in the 60s."

STONE COLD

Amongst the many things that were overtuned about Demon Hunter was Skull of Guldan: it draws three cards and then discounts them by three mana each when 'Outcast', a unique Demon Hunter mechanic that confers an additional benefit when the card is played from the left or rightmost position in your hand. Outcast is cool because it makes the order in which you play your cards crucial, enabling for comparatively high skill turns. The notion that Demon Hunter is a class that requires skill will no doubt lead to some laughter at the back, as any oppressive class which doles out vast amounts of damage invariably gets accused of being braindead, but combined with its uniquely cheap

(one mana for one damage) hero power, there's no arguing that the class feels dynamic and is actually unusually fluid to play.

Skull was far from the only problem. Aldrachi Warblades and Eye Beam enabled vast amounts of life gain, while Imprisoned Antaen delivered ten random damage without any real counter. To the surprise of pretty much anyone, Blizzard intervened almost immediately, making nerfs a day after launch. A second wave followed not long after that hit Altruis the Outcast, an initially innocuous-looking legendary card that, with the correct use of resources, can clear the opponent's board and bring them within lethal change, all in one disgusting, blowout turn. Honestly, Altruis is probably still busted – it really shouldn't do face damage – and, as with whatever's currently most popular in *Hearthstone*, you'll

HONESTLY, ALTRUIS IS PROBABLY STILL BUSTED

find plenty of players lining up to hate on Demon Hunter as the pantomime villain du jour.

ON THE HUNT

Not me though. As someone who's been playing since the day the game came out of alpha, I recognise that a shakeup of this size was never going to come without early wrinkles. The flavour of Demon Hunter (Illidan is, of course, the hero), and the design space it uses, both feel unique enough to justify its creation. There's also plenty of scope for exploring less aggressive deck archetypes, like ramping into some of the card collection's big idiot demons.

What matters to me far more than the fact the class was unbalanced at launch is that the designers are taking bold risks, with talk of more to come in the form of another mode later this year, and further classes not ruled out for the more distant future. It feels like an exciting time to play, even if losing remains as enraging as ever. Plus, let's be real – for *Hearthstone* hipsters, the chance to look cool by not playing the hot new thing is its own reward. ■

THE EXORCIST

Don't get mad, get even

Ladder is still lousy with Demon Hunters, so you're going to need a strong deck that plays to their weaknesses. Statistically, the only hard counter currently agreed on is 'Enrage Warrior', which uses a card called Risky Skipper to

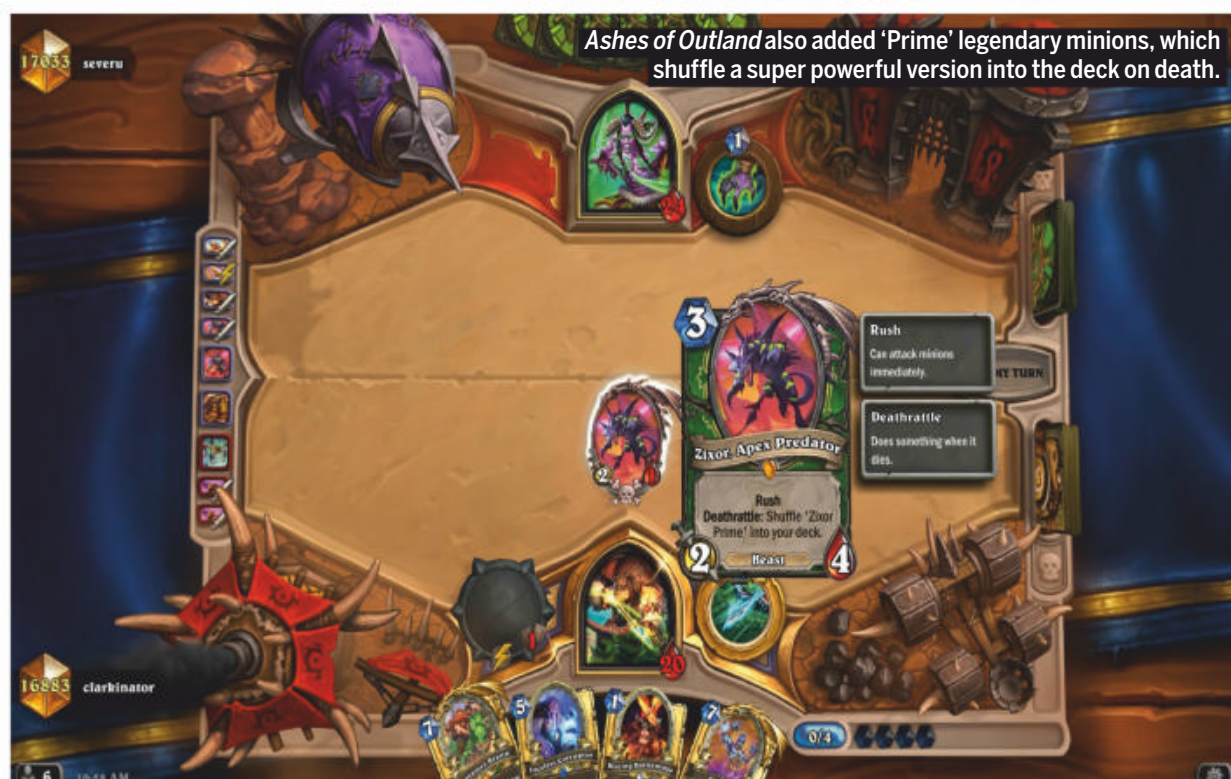
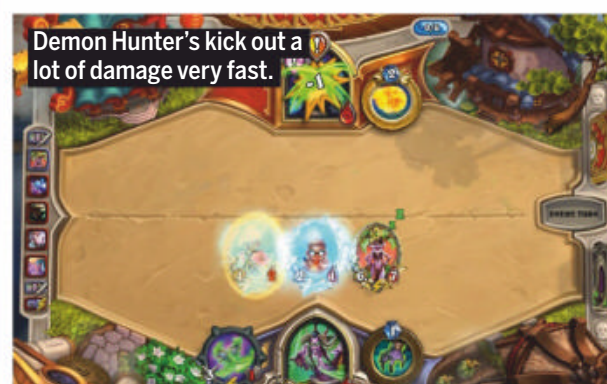
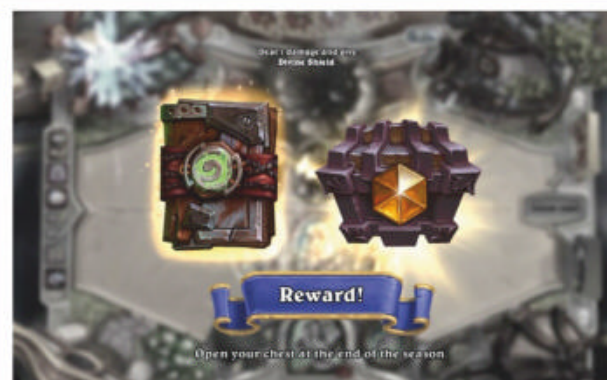
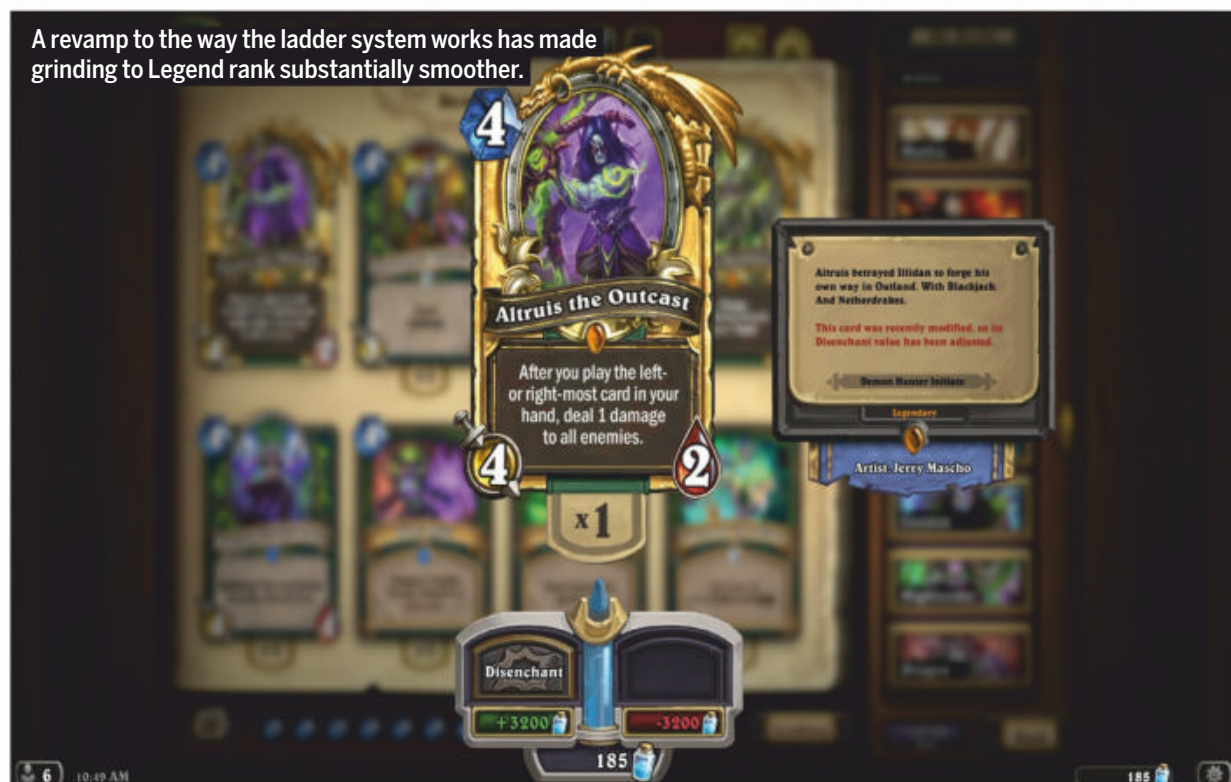
clear Demon Hunter boards while stacking tons of armour in conjunction with old favourite Armorsmith. It can be a bit tricky to play, due to having multiple combos based on having damaged minions, but it's a ton of fun.





Druid is largely focused on token strategies. For Rogue, Big Edwin is still a thing.

A revamp to the way the ladder system works has made grinding to Legend rank substantially smoother.



Yell to Inspire can give your troops a quick morale boost.



Using your real voice to give orders is simpler than hitting keys.





MOUNT & BLADE II: BANNERLORD

Great mods are available already. *By Christopher Livingston*

We had a long wait for *Mount & Blade II: Bannerlord* to finally reach us – about eight years, by my count.

And the moment it finally arrived in Steam Early Access at the end of March, the modders pounced. Mods for *Bannerlord* began appearing almost immediately, and continue to arrive every single day. The *Mount & Blade* games have always been flexible, and the newest entry is no different.

And already we've seen some highly creative mods, including a trio that are all based around the same theme: yelling. A mod called *Screamerlord*, for instance, lets you use your voice to give orders to your troops while in combat. Your real voice! The name is a bit misleading because you don't need to actually scream – just talking into your mic will do the trick. If you like yelling, though, you should go for it, because there's definitely something to be said for getting really immersed in your character.

The mod uses VoiceAttack, a speech recognition program. It's a premium voice tool, though there is a free trial you can use to see if it's something you want to pay for. The free version of VoiceAttack will let you use 20 different voice commands

for *Bannerlord*, while a paid version will unlock 50 of them. It doesn't take long to set up and configure, and before you know it you'll be galloping across the battlefield and giving orders to your soldiers by simply saying them out loud.

It works really well, too! It's honestly much easier than tapping function keys to direct your troops, which requires a lot of key combos you may not have memorised yet. With *Screamerlord*, you can react instantly to the battle without having to lift a finger, and just give a shout when your troops need direction.

BIG UP YOURSELF

Speaking of yelling, you probably already know the wonderful sound



A MOD CALLED SCREAMERLORD LETS YOU USE YOUR VOICE TO GIVE ORDERS TO YOUR TROOPS

you hear at the end of every single successful battle: your soldiers erupting with throaty cheers of triumph. After a long fought battle where your victory may have been in doubt, hearing your soldiers cheer as the music swells is a real payoff. Hell, even in battles where you dominate a lesser army or a handful of scrubby looters, hearing your soldiers loudly cheering is still awesome.

The problem is, you can't join in the celebration yourself... unless you install the *Cheer Mod*, which means you can raise your sword and shield to the heavens and cheer right along with your happy troops. The mod is configurable, letting you pick between an automatic cheer or one you trigger with a keypress. However you choose to set it up, seeing your



WORLD BUILDER *Mods for earlier Mount & Blade games we want to see*



1 LAST DAYS OF THE THIRD AGE
I like Calradia, but my heart belongs to Middle-earth.



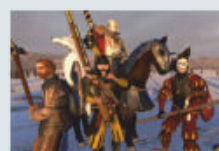
2 BEAR FORCE II
Star Wars made a great match for *Mount & Blade's* sandbox.



3 A CLASH OF KINGS
Maybe we can give Game of Thrones the ending it deserved.



4 GEKOKUJO
Japan's Sengoku period is a fanastically tumultuous setting for adventure.



5 WARSWORD CONQUEST
Mount & Blade meets Warhammer. Bannerhammer-lord? We're ready!

» character let loose a roar at the end of a battle right alongside your bloodied, battered, yet still loyal soldiers is a bit of a thrill and feels like it should have been in *Bannerlord* in the first place.

Speaking of yelling – yes, still – there's one more mod with a more practical use for raising your voice. The *Yell to Inspire* mod turns your warcry into a bonafide character ability, complete with a cooldown. Tap a key to issue a yell and it'll provide a morale boost to your soldiers within a radius of 15 metres, which might inspire them to stop retreating if they've begun to flee a battle. It works on the opposing army as well, only the other way – if your enemies seem to be growing demoralised and preparing to retreat, your fearsome shout could push them over the edge and send them fleeing for the hills. The cooldown and range means you'll have to use it tactically, making this mod a nice strategic addition to combat sessions.

For a game that doesn't have the most lifelike characters or anything even approaching photorealistic graphics, *Bannerlord* is still surprisingly brutal when it comes to its violence. Combat can be a bit wonky as stiff-armed soldiers awkwardly shuffle around with their legs pointed one way and their torsos another, but as wooden as these people might appear it's still gruesome to drive a lance into someone's chest or thump an axe into their head, or witness someone falling off a horse to be brutally swarmed by an angry crowd bearing spears and clubs.

But *Bannerlord* still shies away from true gruesomeness because arms, legs and heads stay attached no matter how much you hack and slash at them. The *Dismemberment Mod* changes that. With this mod installed, if you deliver a fatal blow to someone's head with a weapon that does cut damage, like a sword, there's a chance it'll fly off in a shower of gore. Gross, but effective. It's customisable, too: you can choose the percentage of the time a decisive

neck strike will result in a decapitation. There's even an option for activating a brief period of slow motion when you pop someone's head off, so it feels like a real finishing move. Brutal? Definitely. But like I said, the game is already pretty brutal even without it.

There's a less grisly mod that changes the way you hack and slash at enemies, but it has a much more profound impact on the nature of combat. Most weapons, when swung at an enemy, will only damage the first enemy you hit, even if there's a whole cluster of them within range. Xorberax's *Cut Through Everyone* mod changes this, so if you swing a sword at a group your blow won't stop at the first guy it hits, or even the second. Your slash will continue, cutting everyone within its arc, meaning you can do a whole mess of damage on several enemies with one big swing. It's definitely pretty OP in



IF YOU SWING A SWORD AT A GROUP YOUR BLOW WON'T STOP AT THE FIRST GUY IT HITS

that respect – you're not really meant to be a super soldier that can kill five people with one big swing of your sword. But that's exactly what makes this so much fun.

If you want to focus less on taking people apart and more on putting people together, a wonderful option is the *Detailed Character Creation* mod. *Bannerlord*'s character customisation is already pretty great – there's even asymmetry sliders you can play with for more realistic faces than a lot of games allow. But it's a bit lacking in other areas. This mod lets you use new sliders to change the weight, muscular build, and age of your character, so you can really finely tune yourself.

Even better, you can customise the looks of other characters in the game

using the same mod. Why give just yourself a makeover when you can tweak everyone else's looks, too? One player already used the mod to turn his band of followers into passable versions of the Fellowship of the Ring. Now someone just needs to mod in the whole of Mordor.

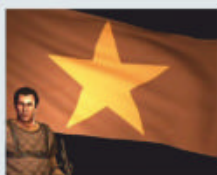
If you don't want to spend the time tinkering with how other characters look in *Bannerlord*, rest easy, because someone else is working on it for you. The *NPC Revamp* mod is an ongoing project to improve the looks of *Bannerlord*'s population. Don't worry, it's not trying to turn every character into a beauty queen (or king), it's aiming more for more visually appealing looks, which may include making characters look tougher, grittier, and overall just less generic and more interesting. It's been updated several times and, at time of writing, several dozen characters in *Bannerlord* have been overhauled, and there are still plenty more to come. The really cool thing is that, if you like any of these revised character's looks, you can copy the face codes from the mod and use them for your own character.

IT TAKES A VILLAGE

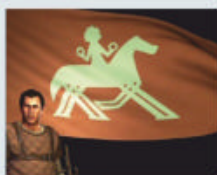
While you're tinkering around with your own party, you might want to put together a few additional parties – though these will remain independent from you. The *Buy Patrols* mod lets you visit any villages you own and hire groups of villagers to protect the surrounding area. Bandits and looters might not pose much of a threat to you once you've grown in power, but you won't always be around to protect settlements from them. Now you can have the people do it themselves, provided you pay them daily wages. It's a great mod that makes your population feel a bit less helpless.

And if you want to go all-in on customising *Bannerlord*, the *Developer Console* mod is essential. It unlocks a dev console so you can enter command codes. There are lots to pick from, including all-out cheats that let you add as much gold as you want to your character, gain levels, add influence and renown, and more. But there are some legit reasons to install this mod beyond just making yourself insta-rich and powerful. *Bannerlord* is in Steam Early Access and there are occasional bugs, so console commands can get you out of a jam. Mostly, though, it's yet another tool to give you the *Bannerlord* experience you're after. That's what mods are all about: making you the lord of your own personal realm. ■

BANNER SCORE What your banner says about you



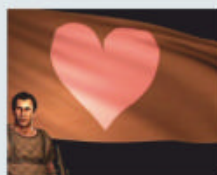
1 My army is rated one star, which is basically a 20 percent. Be gentle.



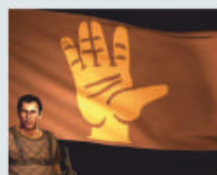
2 Our banner artist has never seen a real horse. He... he did his best.



3 Fear our skateboarding pig! He will show you no mercy!



4 Like and subscribe for more great wars.



5 Hi. That's it. Just... hi.



The modded dev console can make you rich and powerful in seconds.



At last, you can celebrate with your troops!



One mod lets you run your sword through multiple enemies at once.



BUILD A FALLOUT 76 CAMP

Make the scorched wastes into a handsome home. *By Harry Shepherd*

NEED TO KNOW

DIFFICULTY
Easy

TIME
Three hours

VITAL LINKS

Best camp locations:
bit.ly/354DTPX

How to recruit allies:
bit.ly/3ePPdnx

Fallout 76 tips guide:
bit.ly/2xXOWQD



RECLAMATION DAY

1 Establishing your camp is one of the first things you do in *Fallout 76*. Get started by hitting Z in Pip-Boy mode. You can hit the same key to move to different camping spots, but there's a mounting cost in caps for doing so.



LOCATION, LOCATION

2 Save caps by placing your camp far from Vault 76, the only other place you can fast travel to for free. Try to set up near a body of water so you've got a ready supply, and on high ground so you're overlooking any invaders that come for you.



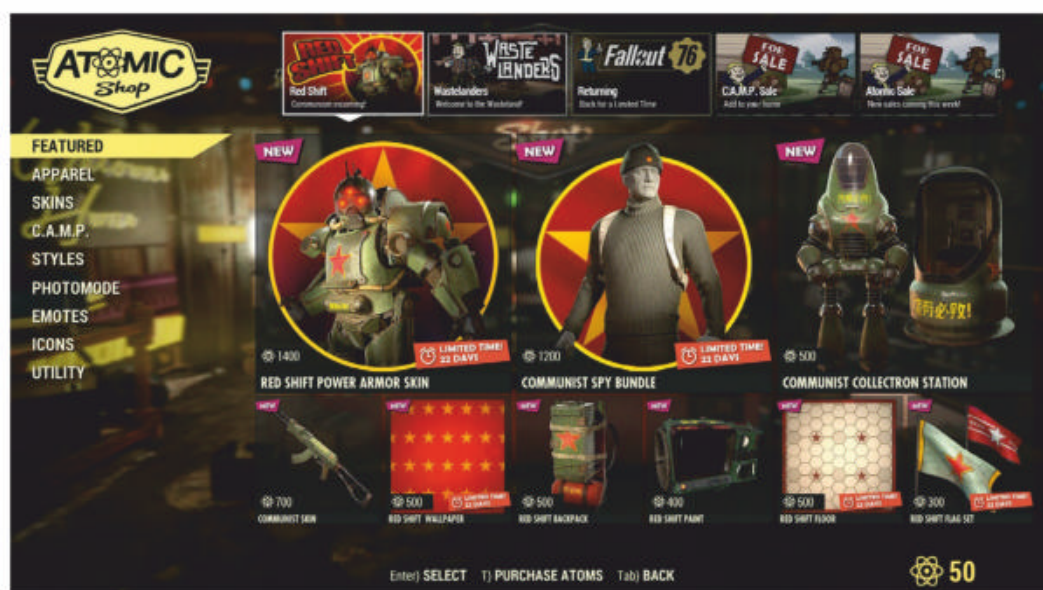
JUNK MAIL

3 Pilfer everything that you find. If you need a specific type of material, press X at a crafting station to 'Tag For Search' missing materials. All corresponding items found in the world will then have a magnifying glass icon next to them.



ALLIED POWERS

4 Now the *Wastelanders* update is out, you can recruit allies to help you protect your camp. Once you've reached level 20 to trigger ally missions, find Commander Sofia Daguerre in The Mire and Beckett in Ash Heap.



SPLITTING ATOMS

5 You can buy cosmetics for your camp by trading real money for *Fallout 76*'s premium currency, Atoms. But you can also earn them free by completing daily and weekly Atoms challenges.

STRONG SUIT

6 Scavenge more by investing in the Strength stat. Reduce the weight of your scrap by up to 75 percent with the Pack Rat perk card, and increase your carry weight by up to 40 percent with Strong Back.



SAVING SPACE

7 Sadly you can't build a sprawling mansion the envy of even Jeff Bezos; your camp has limits. In build mode, keep an eye on the 'Budget' bar in the top-right that shows the remaining items for which your settlement has space.

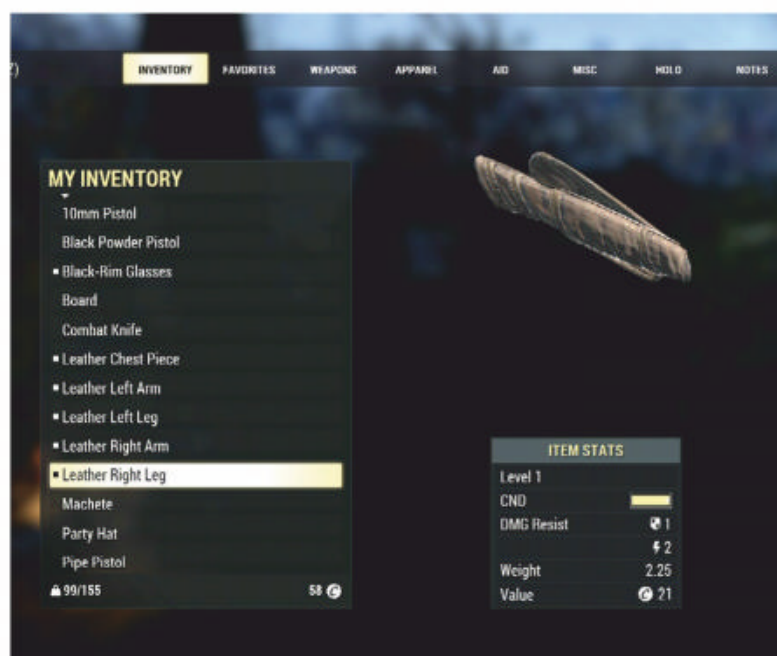


GRAND DESIGNS

FORTY WINKS

10 As well as the various workbenches, crafting a bed should be your top priority. Not only will sleeping quickly restore your health points, rest for long enough and you'll gain the 'Rested' bonus and temporarily increase your XP gain.

TOP SPOTS *Where to construct your camp in Appalachia*



SCRAP YARD

11 Followed my instruction to pick up all available junk? Occasionally that'll weigh you down. So every time you visit your camp, make sure you 'Scrap All Junk' at a crafting station, as reducing your junk to its component parts lightens your load.



TURRETS SYNDROME

12 A great way to automate your camp's defences against Appalachia's assorted uglies is to build turrets. Invaders will attack crops, generators, so purifiers first, so place your machine gunners thoughtfully. That said, turrets do swallow up your camp budget.

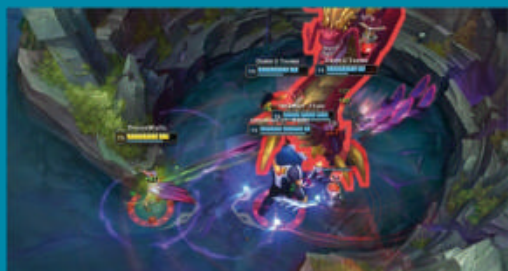


WHY I LOVE

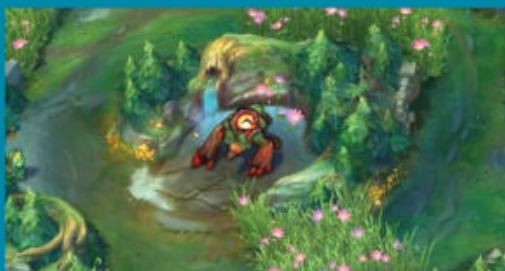
WHAT MAKES GAMES SPECIAL

PLAYING A JUNGLER IN LEAGUE OF LEGENDS

Why the MOBA's least popular role is also the most fun. *By Steven Messner*



LEFT: Junglers with good timing can steal monster kills from the enemy team.



Leaque of Legends is a hopelessly complicated game – it can take hundreds of hours to master any one of its five roles. Of those, the jungler is the least popular among players, and it's easy to see why. Unlike the others on your team, you don't spend the game camped in a lane, picking off waves of minions for gold and experience points while participating in a deadly dance against opponents who are trying to do the same. Jungling is like a whole other game inside of *League of Legends* – one that takes a lot of patience and skill. But once you understand the mind games, the clever tricks, and the thrill of ambushing enemy players, it becomes clear that jungling is *League of Legends*' coolest role.

If you haven't played the game, junglers are basically glorified errand boys with a licence to kill. While other players face off in the three lanes that stretch between each team's base, your haunt is the forested regions found between them, called the jungle. Here you roam about unseen, fighting camps of respawning monsters for gold and experience while looking for ways to give your teammates an extra edge.

CREEP SHOW

Good junglers are masters of information and guerrilla warfare. They know how to get inside the other team's head and mess with them to create openings for a deadly gank. If the enemy team's toplaner gets aggressive and overextends too far forward, I can pop out of the concealment of my jungle and, along with my own toplaner, tag-team him. Given how high stakes *League of Legends* is, I know that it has a good

NEED TO KNOW

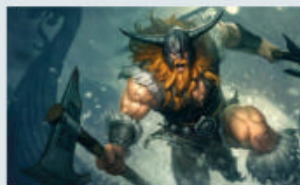
RELEASED
October 27, 2009

EXPECT TO PAY
Free to play

OUR REVIEW
82%

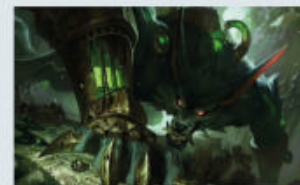
LINK
leagueoflegends.com

JUNGLE LOVE *The best junglers for newer players*



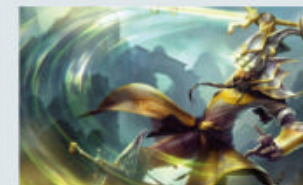
OLAF

This bruiser throws axes that slow enemies, can take a beating and can duel most champions on his own. Pick Olaf if you like to go charging into battle.



WARWICK

Warwick specialises at chasing down wounded enemies and picking them off, but he's very tanky too. Choose him if you like picking off weak enemies.



MASTER YI

People hate Master Yi for a good reason: he becomes unstoppable if left unchecked and his main ability makes him impossible to hit.

chance of getting under that player's skin, making them more prone to making more mistakes. Sometimes that player, now feeling pressured to catch up from their untimely death, will continue to be aggressive and push forward, giving me another opportunity to punish them.

Junglers can set up much more elaborate ganks, though. They might place vision-granting wards in the enemy jungle so they can see where the enemy jungler is and orchestrate a deadly ambush against them. They

and it's unlike anything else in *League of Legends*. I love how it pushes me to always think two steps ahead.

But being a jungler is also fun in a much more wholesome way. Unlike a lot of *League of Legends* players, I don't necessarily enjoy being the star of the show. For me, it's fun to lift my teammates up so they can dominate a match. Though I might be the one to initiate a fight against an enemy player, I'm rarely the one who finishes it. My job is to weaken and stun the enemy so my own teammate can get the kill, earning the bonus gold and experience points that will make them even stronger.

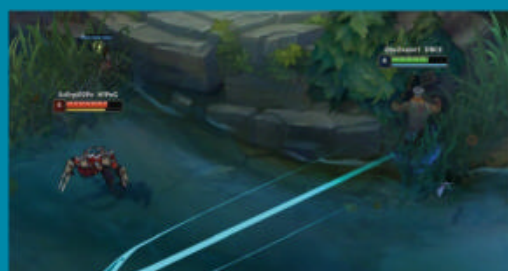
Junglers are also natural team leaders, though. On either side of the map are powerful monsters that, when slain, award powerful buffs or unique abilities. The Rift Herald, for example, can be killed and then summoned to take down enemy defences. But it's up to me to coordinate with my team and make the call for when we should take those objectives. If the enemy jungler is alive and nearby, they might slip in at the last moment and steal the monster kill and its benefits for their own team – leaving us vulnerable.

It's these layers of strategy, knowing when to act or how to turn a bad situation around, that make jungling so satisfying. It's an experience unlike anything else in *League of Legends*, and I absolutely love the unique challenges and opportunities it presents. ■

MY JOB IS TO WEAKEN AND STUN THE ENEMY SO MY OWN TEAMMATE CAN GET THE KILL

might surprise a weakened enemy camping under the powerful defences of their tower by diving in to get the kill and then flashing away before the tower, in turn, kills them. *LoL* might seem complicated, but once you get it, that complexity gives rise to endless opportunities.

That's the life of a jungler. While my team focuses on farming up experience points and gold, I get to roam from lane to lane jumping on the enemy team and harassing them. That team's own jungler is doing the same thing, of course, which creates many hilarious ambushes on top of ambushes. It's a role for people who love being aggressive and taking risks,



LEFT: Hiding in bushes is a classic trick.





REINSTALL

OLD GAMES, NEW PERSPECTIVES



It's simultaneously old and new
and experimental and nostalgic



TEAM FORTRESS 2

The more things change... *By Phil Savage*

The received wisdom is that *Team Fortress 2* has changed, and not for the better. The argument, often made by former players, is that everything Valve has added to the game over the last 13 years – the hats, the achievements, the jars of human piss – has diluted the spirit of what *TF2* once was. I've fallen into the same trap myself over the years, bemoaning that the game I once loved no longer exists.

It would be absurd to suggest that *Team Fortress 2* hasn't changed; it was arguably the poster child for games-as-a-service design. It's evident in everything from the menus to the way you start a match. Nevertheless, returning after years away, I'm struck by how much of the

core appeal remains. There is more now: more maps, more weapons, more customisation options, more effects. Sometimes there are lasers. Sometimes you'll be drenched in milk. In a handful of ways, though, this is still the *TF2* that became one of the most influential online shooters of the 21st century so far.

Load into a match and you'll still get teammates in your home spawn accusing every player of being a Spy. You'll still get intractable 2Fort stalemates, as players abandon the objective in favour of an endless deathmatch. You'll still get sniper wars and W+M1 Pyros. Most importantly, you'll still get the clarity of purpose and personality of its nine classes, who retain their role and at-a-glance design, even as their arsenals and accoutrements have grown over so many updates.

CLASS ACT

The classes are the heart of what made *TF2* such an enduring phenomenon, and in retrospect laid the path for the character-led template of the subsequent hero shooter craze. If a medic in *Battlefield 2* was more uniform than man, the Medic in *Team Fortress 2* was an actual person. We 'met' him, and the other mercenaries, through a series of vignettes released over a period of years – each one increasingly elaborate until *Team Fortress 2* was a full universe of relationships and conflict; antagonistic administrators and boisterous, technologically advanced Australians.

Overwatch and its ilk would go further, drawing on *League of Legends* and *Dota 2* to make actual characters with names and abilities to go along with their distinct weapon sets. But *Team Fortress 2*'s proto-style has merit. To modern

NEED TO KNOW

RELEASED
October 10, 2007

DEVELOPER
Valve

PUBLISHER
In-house

LINK
teamfortress.com



REINSTALL

OLD GAMES, NEW PERSPECTIVES



eyes, this undefined melding of class and character feels more awkward, yes, but also more playful. It lampshades the inherent absurdity of the same characters fighting an endless conflict – largely defined by being dressed in either red or blue clothes – and thus invites you to revel in it too. It's impossible to take the conceit seriously, creating a charmingly slapstick battlespace, despite all the blood and gibbs.

It's refreshing – after years of seeing characters like *Overwatch's*

Reaper and *Apex Legends's* Revenant – to be playing a game that so fully rejects being dark or edgy. But more than a tonal triumph, I'm taken by how unexpectedly restrained *Team Fortress 2's* class design feels. Where once nine distinct playstyles felt like a lot, now it's at the low end of a videogame roster list. And while each has been broadened over the years, even the wildest of weapon loadouts won't change the basic role each class was made to fill. The Pyro still burns things. The Sniper still does long

range, precision damage. The Scout, well, they're still a prick.

Arguably Valve's boldest design decision – one that's remained steadfast throughout *TF2's* lifespan – was not to include an assault rifle. It's too blandly effective for a game built around player limitation. The Heavy's minigun might be able to cut down swathes of enemies, but it comes with inherent compromise: slow movement, a long spin-up time, a large, dominating hitbox. Each class comes with a similar in-built weakness, usually in the form of another class that acts as a hard counter, in a way that creates more of an unspoken sense of team cohesion than in other games of its type.

DREAM TEAM

A problem that *Overwatch* has never elegantly solved is incentivising players to switch heroes based on the team they're facing. For starters, the loss of your ultimate ability's charge means there's a cost for making a change. More deeply, though, it's harder to master a large roster's range of quirks and abilities and counters, meaning players trend towards picking a single 'main', or at

NEVER GO HOME AGAIN *Six key updates in TF2's history*

APRIL 29, 2008

GOLD RUSH UPDATE

The first major update added the payload mode and began the process of giving each merc an alternate weapon set.

OCTOBER 29, 2009

HAUNTED HALLOWEEN SPECIAL

The first Halloween event added *koth_harvest* and also filled out the lore of the ridiculous Mann family.

AUGUST 15, 2012

MANN VS MACHINE

This added a co-op horde mode against robotic versions of the mercs.



MAY 21, 2009

SNIPER VS. SPY UPDATE

This added the hats. And also the piss.

SEPTEMBER 30, 2010

MANN-CONOMY UPDATE

TF2 gets item trading and loot boxes. At its height, stories about the wild *TF2* earbud market were more fascinating than the game itself.

JULY 7, 2016

MEET YOUR MATCH UPDATE

Arguably the last of the real game-changing patches (so far?), this added matchmaking for casual and competitive play.

A face of pure indifference.



VALVE USED TF2 AS A TESTING BOARD FOR WHAT GAMES-AS-A-SERVICE SHOULD BE

least a handful of characters that they feel most comfortable with.

Team Fortress 2 doesn't have this, at least to the same extent. I use Scout more than any other class, but have no qualms about switching if I'm staring down the barrel of a sentry nest. It feels like an essential part of play. You encounter problems that your team composition can't handle, and make changes as needed.

That's the ideal, at least. Sometimes, you are going to be matchmade onto a team with six Spies. Some people are just beyond help, no matter what game you play.

This is where *Team Fortress 2*'s template can break down. Its round times are longer than most hero-shooters, which, if both teams are rebalancing around each other, can make for thrilling last-minute plays that change the course of the match. But if that cohesion doesn't exist, then you're likely in for a bad time.



You can experience this for yourself. Just queue up for a round of 2Fort and it *will* happen sooner rather than later. And when it does... it's fine. Yes, *Team Fortress 2* has matchmaking now, but its heart is still the server browser – a rare and beautiful thing for a game with a still-active playerbase. Matchmaking is a performance, where you queue up and get one shot to impress the people that you're grouped with. More than that, the individual tracking and reward structures that were built to incentivise repeat play – K/D ratios, XP and levels – give a heightened meaning to both individual and team performance. While there are benefits to this, it can be exhausting. You're encouraged to always be 'on'; to perform at your best and never mess up.

HATS OFF

Team Fortress 2 also has levels and XP now, but how players perceive a game's purpose is a harder thing to shift. The existence of the server browser invites players to take individual matches less seriously, because servers are a hangout rather than an individually portioned

measure of skill. Each server has its own personality – it's a place you visit for a specific type of game, even if that game is loaded with so many custom rules, maps, and modes that it barely resembles *TF2* anymore.

Valve used *TF2* as a testing board for what games-as-a-service should be – the hats, the crates, the marketplace, the crafting. Outside of play, the game can at times feel like a 13-year-long brainstorming session, filled with different ideas – some written over each other, others hastily wiped off leaving just the faintest trace of what remained. This is what makes *TF2* such a fascinating game to reinstall. It's simultaneously old and new and experimental and nostalgic. Its magic is weirdly ephemeral, existing as a morass of elements from throughout its history.

This is why anyone arguing that it should have been preserved in amber is missing the point. Even if you could load up the version of the game that existed in 2008, you couldn't recreate the specific servers and memes and the ecosystem of PC gaming and multiplayer shooters of the time. *Team Fortress 2* *has* changed. But so have you. ■

TOM
SENIOR

Left-click on my character portrait to put me on overwatch.

BREACH AND CLEAR



XCOM: CHIMERA SQUAD

xcom.com

→ Command a cool, supercharged SWAT team on a mission to restore law and order to a city about to fall into total anarchy. *XCOM: Chimera Squad* is a messy tactics game in some ways, but it's still good *XCOM*, with refreshing city-scale scope. Make sure you level up Verge; he's amazing after a few ability unlocks.

FIRE IN THE HOLE



GEARS TACTICS

xbox.com/en-US/games/gears-tactics

→ How has this happened? A *Gears* strategy game out-scored an *XCOM* game this month – and deservedly so. It looks great, and *Gears* makes some clever tweaks to the *XCOM* formula to make fights even bloodier. Execute enemies to give of your team extra actions, and then use those actions to execute more enemies!

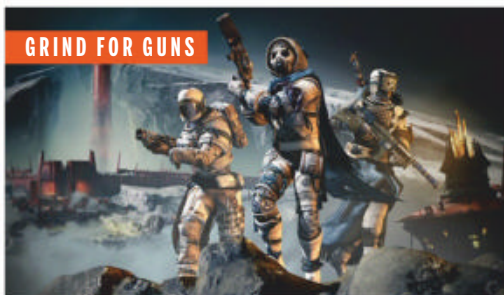
BUILD AN ARMY

MIDDLE-EARTH:
SHADOW OF WAR

shadowofwar.com/purchase

→ Of all the games in my backlog, *Shadow of War* has captured me completely. The combat system drew me in, but it's the orc politics that keeps me playing. Turn enemies into spies and then assassinate warlords to steal their fortresses. It's fun to play a total monster.

GRIND FOR GUNS



DESTINY 2

bungie.net

→ The *Destiny 2* seasonal events are balls, but this is still a gorgeous, satisfying sci-fi shooter. The developer is floundering a bit trying to figure out how to update their already bloated living game without destroying it, but if you haven't tried *Destiny* yet and you like cool guns and tons of lore, this is a great choice.

MUST

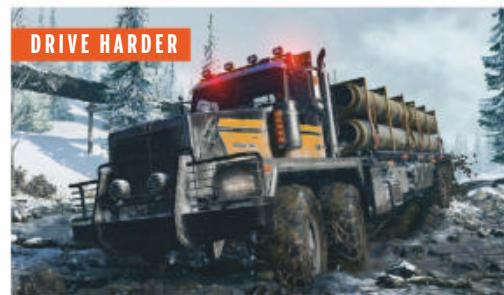


PLAY

A PERSONAL LIST
OF THE BEST
GAMES YOU CAN
PLAY RIGHT NOW

by Tom Senior

DRIVE HARDER



SNOWRUNNER

snowrunner-thegame.com

→ One of the most dramatic gaming moments I've enjoyed this week was trying to get my truck out of a patch of mud in *Snowrunner*. This sim models dirt and surfaces to make basic traversal a puzzle. Heavier vehicles can power through, but once their wheels sink into a deep filth patch, good luck getting them out.

EXPLORE A FAIRYTALE

ORI AND THE WILL
OF THE WISPS

orithegame.com

→ What can I say. *Ori and the Will of the Wisps* is just beautiful. The platforming is sharp and the combat is fun once you've unlocked the big smashy hammer, but the main appeal is the gorgeous artwork. Each new zone is exciting to explore, and the massive bosses are terrifying.

GET EATEN



ALIEN: ISOLATION

sega.com/games/alien-isolation%E2%84%A2

→ *Alien: Isolation* went on sale for £1.50 recently, which is just absurd value for an innovative horror game that still looks and sounds incredible. The star is the Alien, of course. It hunts you using advanced AI that registers every sound you make. If you hide in closets all the time, it starts checking them. And eats you.

COLLECT AND KILL



MAGIC: THE GATHERING ARENA

magic.wizards.com/en/mtgarena

→ The venerable collectable card game finally has a good digital version. *Magic: The Gathering Arena* is free to download, and you can unlock a generous collection of cards without paying anything. You need to spend if you want to get serious about competitive multiplayer, but it's so worth it.



Future Publishing Ltd Quay House, The Ambury, Bath BA1 1UA

Tel: 01225 442244 | **Email:** letters@pcgamer.com

www.pcgamer.com

Brand Director Tim Clark

Global Editor-in-Chief Evan Lahti

PC GAMER UK

Editor-in-Chief, UK	Phil Savage
Print Editor	Robin Valentine
Online Editor, UK	Tom Senior
Features Producer	Andy Kelly
News Editor	Fraser Brown
Guides Editor	Harry Shepherd
Staff Writer	Rachel Watts
Guides Writer	Emma Matthews
Art Editor	John Strike
Production Editor	Tim Empey
Video Producer	Graeme Meredith
Hardware Lead	Dave James
Senior Hardware Editor	Alan Dexter
Senior Hardware Editor	Jacob Ridley

PC GAMER US

Executive Editor	Tyler Wilde
Senior Editor	Wes Fenlon
Senior Reporter	Steven Messner
Features Producer	James Davenport
Features Producer	Chris Livingston
Weekend Editor	Jody Macgregor
News Lead	Andy Chalk
Hardware Writer	Jorge Jimenez

CONTRIBUTORS

Matthew Elliott, Ian Evenden, Jeremy Peel, Alex Spencer, Tom Sykes

PHOTOGRAPHY & ILLUSTRATION

Photographer	Olly Curtis
Spy Illustrations	David Lyttleton

DIGITAL PRODUCTION

Group Production Editor	Steve Wright
Editorial Operations Assistant	Nick Lee

PRODUCTION

Head of Production US & UK	Mark Constance
Production Project Manager	Clare Scott
Advertising Production Manager	Joanne Crosby
Digital Editions Controller	Jason Hudson
Production Manager	Fran Twentyman

ADVERTISING

Commercial Director	Clare Dove
Advertising Director	Tom Parkinson
Account Director	Jeff Jones
Account Manager	Kevin Stoddart

INTERNATIONAL LICENSING

Head of Print Licensing	Rachel Shaw
--------------------------------	-------------

SUBSCRIPTIONS & CIRCULATION

Head of subscriptions	Sharon Todd
Head of Newstrade	Tim Mathers

SENIOR MANAGEMENT

Chief Content Officer	Aaron Asadi
Commercial Finance Director	Dan Jotcham
Head of Art & Design	Rodney Dive
Group Art Director, Games	Warren Brown

SUBSCRIPTIONS Email: contact@myfavouritemagazines.co.uk | **UK orderline:** 0344 848 2852 | **International orderline:** +44 (0)344 848 2852 | www.myfavouritemagazines.co.uk

DISTRIBUTED BY Marketforce, 5 Churchill Place, Canary Wharf, London, E14 5HU | **Tel:** 0203 787 9001 | www.marketforce.co.uk

LICENSING Email: licensing@futurenet.com

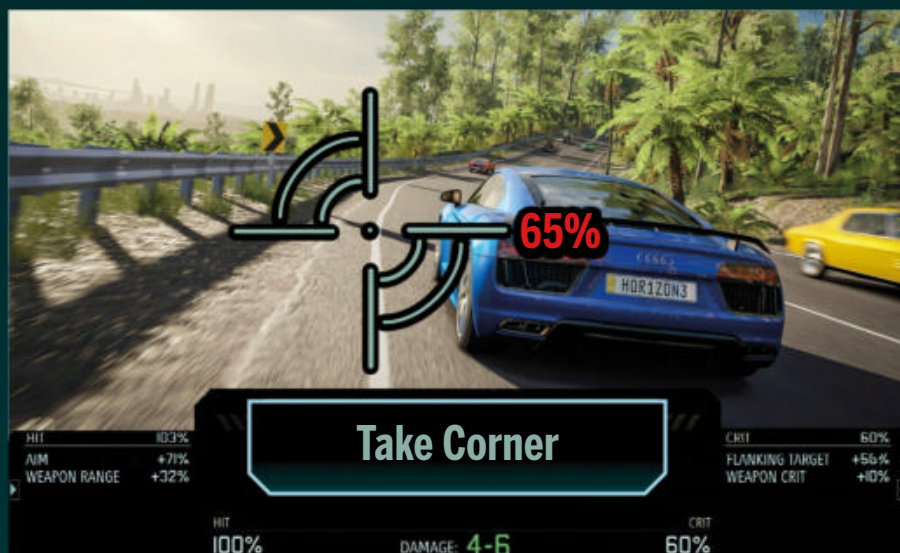
ISSN: 1351-3540

All contents © 2020 Future Publishing Limited or published under licence. All rights reserved. No part of this magazine may be used, stored, transmitted or reproduced in any way without the prior written permission of the publisher. Future Publishing Limited (company number 2008885) is registered in England and Wales. Registered office: Quay House, The Ambury, Bath BA1 1UA. All information contained in this publication is for information only and is, as far as we are aware, correct at the time of going to press. Future cannot accept any responsibility for errors or inaccuracies in such information. You are advised to contact manufacturers and retailers directly with regard to the price of products/services referred to in this publication. Apps and websites mentioned in this publication are not under our control. We are not responsible for their contents or any other changes or updates to them. This magazine is fully independent and not affiliated in any way with the companies mentioned herein.

IT'S ALL OVER...

IT'S THEIR TURN

GEARS TACTICS has kicked off quite the trend – PC Gamer can exclusively reveal four more series going turn-based in 2020.



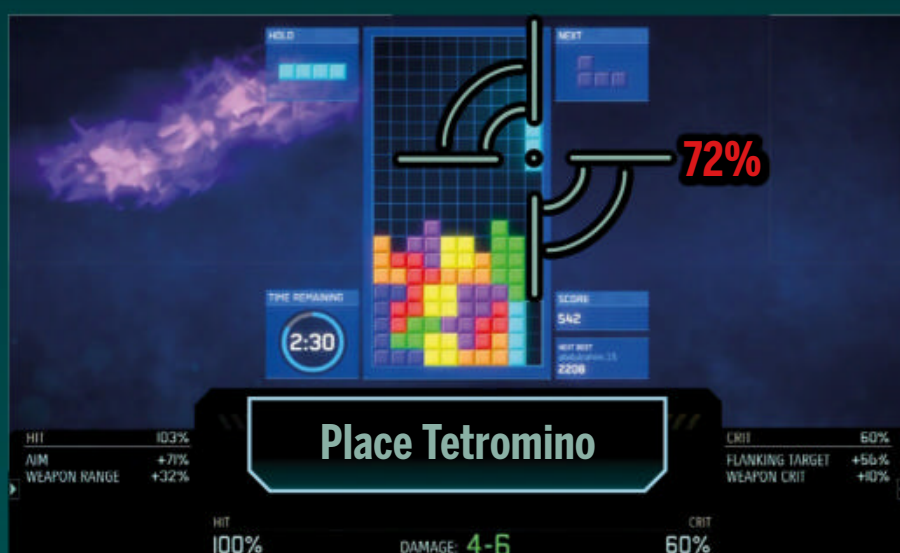
FORZA HORIZON TACTICS

Choose your strategies carefully, combining abilities such as 'Go Left' and 'Straight Ahead'.



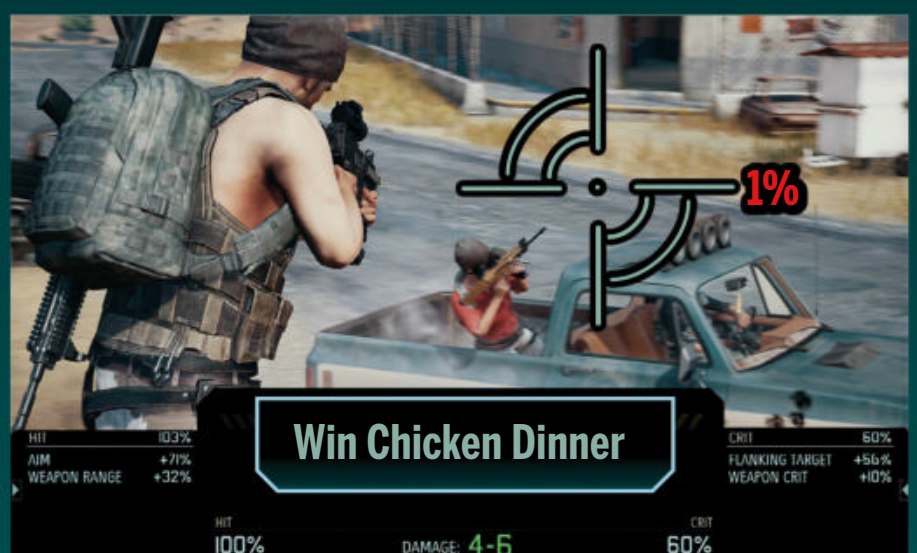
FARMING SIMULATOR TACTICS

Turn 1: prepare your field. Turn 2: plant some corn.
Turns 3-10,000: watch corn grow.



TETRIS TACTICS

You've got all the time in the world to decide on your next drop.
Get the ultimate high score... eventually.



PUBG TACTICS

Take your turn to search a house, then wait as 99 other players take theirs.

...UNTIL **JUNE 25**



£499.99

Impulse

AMD IMPULSE (RYZ7)

AMD Ryzen 5 2600 - 6 Cores (O.C 4Ghz)

ASUS PRIME B450M-A

CORSAIR 8GB DDR4 3000Mhz

INTEL 512GB M.2 nVME 660P

AMD RX 560 2GB

GAMEMAX Expedition

MICROSOFT Windows 10 or 10 Pro



£599.99

mercury

INTEL i5 MERCURY (COF9)

INTEL Core i5 9600K (O.C 5Ghz)

ASUS PRIME Z390-P

CORSAIR 16GB DDR4 3000Mhz

INTEL 1TB M.2 nVME 660P

INTEL UHD 630 Integrated Graphics

KOLINK Stronghold

MICROSOFT Windows 10 or 10 Pro



£1249.99

NAVIGATOR

AMD NAVIGATOR (RYZ8)

AMD Ryzen 5 3600X (O.C 4.3Ghz)

ASUS TUF X570-Plus Gaming

CORSAIR 16GB DDR4 3600Mhz - RGB

INTEL 512GB M.2 nVME 660P

SEAGATE 2TB Sata3 HDD

AMD 5700XT 8GB

CORSAIR iCUE 220T RGB White

MICROSOFT Windows 10 or 10 Pro

palicomp

01270 898 104
sales@palicomp.co.uk

*Sales subject to our terms of sale available online - www.palicomp.co.uk - Configuration issues will be advised by phone - any alternatives will also be advised by phone before proceeding with the order. Systems Custom built then are tested 100% prior to dispatch - dispatched via courier for next working day delivery - other delivery options available online. 0% Finance upto 12 months only - terms online - early settlement fee just £29.00 - apply online or phone. Prices inclusive of VAT and free UK mainland shipping. Q-jump cut-off time 15.00pm.



G-MASTER™
#MONITORS4GAMERS
by *iiyama*



Reach your full gaming potential, widen your vision and enjoy the amazing image quality with the brand new iiyama GB3461WQSU Gaming Monitor.

RED EAGLE GB3461WQSU-B1

• 34" Display • IPS Panel • 3440x1440 Resolution • 144Hz Refresh Rate • 1ms Resonse Time • 144Hz Refresh Rate • Height Adjustable



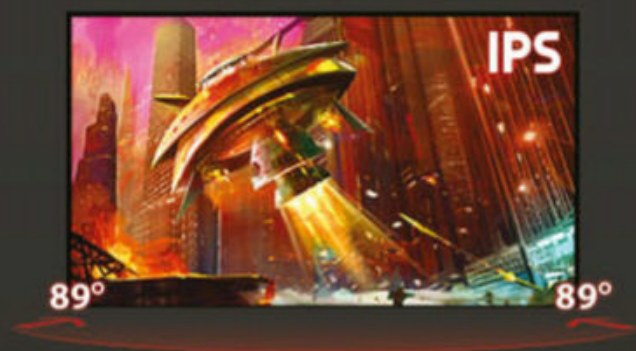
Freesync™ PREMIUM TECHNOLOGY

This monitor supports displaying HDR content and guarantees low input latency and low framerate compensation.



ULTRA WIDE - UWQHD

UWQHD (Ultra Wide QHD) resolution offers an ultra wide (21:9) viewable area.



IPS TECHNOLOGY

Covering 100% of the sRGB colour range, this IPS panel provides outstanding colour accuracy and wider viewing angles guaranteeing high-fidelity, vivid battleground scenes.

PREDEFINED AND CUSTOM GAMING MODES

Have it just the way you want it! Choose one of the predefined gaming modes (including FPS and strategy) or customise and memorize your own settings.



BLACK TUNER

The users can adjust the brightness and the dark shades with the Black Tuner, giving greater viewing performance in shadowed areas and helping to spot the enemy earlier.

SPEAKERS AND HEADPHONES

Playing with other people? Use the integrated high-quality speakers. Don't want to disturb anybody? Plug your headset into the headphone socket and turn the volume up to your heart's content.



AVAILABLE AT WWW.BOX.CO.UK/REDEAGLE